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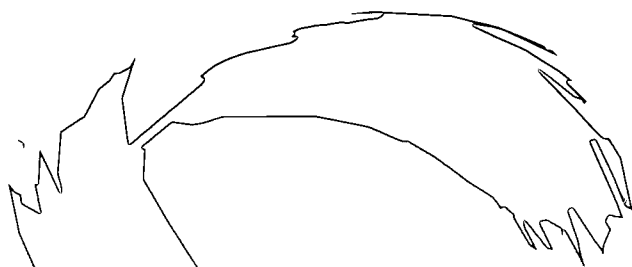
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ABSTRACT

This publication provides a reference for those interested in conducting comparative studies about North Carolina tests. It includes norms tables and other basic statistical information for all state-developed tests (state-mandated and local option tests where baseline data are available) that were administered during the current accountability cycle. The baseline norming year is shown for each test. These statistics are the product of a method that computes percentile ranks across two or more distributions. State-mandated end-of-grade test norms, open-ended assessment norms, and local option end-of-grade test norms are given for tests for grades 3, 4, 5, 6, 7, and 8. Norms are given for the end-of-course (high school) tests in 10 subjects. Norms are also presented for the High School Comprehensive Tests for reading and mathematics at grade 10. A discussion of using test scores for student decisions is included, as is a glossary of testing and other statistical terms. (Contains 44 tests.) (SLD)



State Norms

for the North Carolina Testing Program

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1999 Edition

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Introduction

The purpose of this publication is to provide a reference for educators and others interested in conducting comparative studies relative to North Carolina tests. This publication includes norms tables and other basic statistical information for all state-developed tests (state-mandated and local option tests where baseline data are available) that were administered during the current accountability cycle. New tests and revisions of existing tests are made from time to time; therefore, subsequent editions of this publication will include norms and statistical information for new and revised tests as they are implemented.

The North Carolina ABCs Accountability Program requires extensive use of statistics from North Carolina state-mandated tests to monitor the progress of the state's public schools. Each school is measured against itself, and is accountable for having students make reasonable progress based on year-to-year comparisons of test performance. The accountability program uses the core components of the statewide testing program, focusing accountability on the basics. Student improvement is routinely measured by the State Board of Education in reading, writing, and mathematics at the elementary and middle school levels. At the high school level, schools are held accountable in the core subjects required for graduation where state tests have been developed: English I and II; Algebra I and II; Geometry; U.S. History; Economic, Legal, and Political Systems; Physical Science; Biology; Physics; and Chemistry. Statistical information, including norms, for other state-developed tests is included in this

document as a reference when using those tests.

Users of this publication are reminded that state-level frequency distributions and other descriptive statistics are generated each year a state-mandated test is administered; however, for baseline comparative purposes, normative statistics are typically established the first year a test is administered, revised, or as designated by the test publisher, North Carolina Department of Public Instruction (NCDPI). The baseline norming year is shown for each test in the List of Contents (on page 3) and at the top of each table.

Several legitimate statistical methods exist whereby norms may be calculated for tests. Each method may produce slightly different (although educationally insignificant) normative scores. The statistics presented here represent the product of the method used by the Public Schools of North Carolina, NCDPI, for the state's testing and accountability programs. This method computes percentile ranks that can be compared across two or more distributions (unlike percentiles). Accordingly, persons using these tables should be able to replicate statistics on file at NCDPI when calculating test averages and percentile rankings locally.

Educators and others interested in using these tables may contact the Regional Accountability Coordinator (RAC), local testing coordinators, or the Division of Accountability Services for additional information on the appropriate uses of these tables. This publication is being revised mainly to include the 1999 norms for NC End-of-Grade Tests in reading and mathematics in grades 3-8.

Acknowledgments

The development of a document that contains a variety of statistical information requires the skill and efforts of many individuals. We thank George Stubblefield for compiling the statistical information; Mildred Bazemore for organization, writing, editing and contributions to the text; and Karen Davis, Linda Althouse, and George Stubblefield for their contributions to the text and statistical information for this document.

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Guides to the Interpretation of Tests:

Using Test Scores for Student Decisions
 End-of-Grade Tests - Achievement Levels by Subject and Grade
 End-of-Course Tests - Achievement Levels and Scale Scores
 North Carolina High School Comprehensive Test - Achievement Levels
 Glossary of Testing and Other Statistical Terms

Norms and Interpolation Tables:

| | Current Norm Year | Original Norm Year |
|---|----------------------|-----------------------|
| State-Mandated End-of-Grade Tests | | |
| Grade 3 Pretests/Reading and Mathematics | 1996 | 1996 |
| Grades 3-8 Reading | 1999 | 1993 |
| Grades 3-8 Mathematics | 1999 | 1993 |
| Open-Ended Assessments/Reading and Mathematics Grade 8 | 1997 | 1997 |
| Local Option End-of-Grade Tests | | |
| Grades 3-8 Social Studies | 1994 | 1994 |
| Grades 3-8 Science | 1996 | 1996 |
| French Forms A and B | 1992 | 1992 |
| Spanish Forms A and B | 1992 | 1992 |
| State-Mandated End-of-Course Tests | | |
| Algebra I | 1994 | 1987 |
| Biology | 1995 | 1987 |
| Economic, Legal, & Political Systems | 1997 | 1991 |
| English I | 1995 | 1990 |
| U.S. History | 1995 | 1988 |
| Algebra II | 1997 | 1988 |
| Chemistry | 1997 | 1989 |
| Geometry | 1997 | 1989 |
| Physical Science | 1997 | 1991 |
| Physics | 1997 | 1990 |
| North Carolina High School Comprehensive Test | 1998 | 1998 |

State-Mandated End-of-Grade Tests

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End-of-Grade Tests

Historical Information. North Carolina end-of-grade tests were initiated in response to legislation passed in 1989 by the North Carolina General Assembly. North Carolina end-of-grade tests were developed by the North Carolina Department of Public Instruction with technical support from the L.L. Thurstone Psychometric Laboratory at The University of North Carolina at Chapel Hill and the North Carolina Technical Advisory Group. The tests were developed for use as curriculum-based achievement tests to measure the acquisition of specific subject-area content and skills associated with a particular grade in school.

Based on the 1989 legislation, North Carolina end-of-grade tests were developed for two purposes:

- To provide accurate measurement of individual student skills and knowledge specified in the North Carolina *Standard Course of Study*, and
- To provide accurate measurement of the knowledge and skills attained by groups of students for school, school system, and state accountability.

End-of-grade tests are designed to measure higher level thinking skills. When properly administered and interpreted, these test results provide an independent, uniform source of reliable and valid information that enables:

- Students to know the extent to which they have mastered expected knowledge and skills and how they compare to others;

- Parents to know if their children are acquiring the knowledge and skills needed to succeed in a highly competitive job market;
- Teachers to know if their students have mastered grade-level knowledge and skills in the curriculum and, if not, what weaknesses need to be addressed;
- Community leaders and lawmakers to know if students in North Carolina schools are improving their performance over; and
- Citizens to objectively assess their return on investment in the public schools.

Scores on the end-of-grade tests are only one of many indicators of the achievement of students. The value of these tests lies primarily in the fact that the scores provide a common standard that is not influenced by local differences in achievement and expectations. The tests provide yardsticks, which can be used to compare the achievement of students, schools, school systems, and the state. The assessment yardstick can be used to measure gains (or losses) in performance across time to see if education improvement efforts at the state and local level are working.

North Carolina end-of-grade tests in reading and mathematics at grades 3-8 were initially normed in 1993. The tests were renormed using the state statistical distribution of scores from the 1998-99 statewide administration.

Scale Scores. Raw scores are converted to scale scores on the end-of-grade tests. Developmental scale scores allow the different forms of the test to be equated, so that a developmental scale score of 150 in reading on Form A represents the same level of achievement as a developmental scale score of 150 in reading on Form B, even though the raw scores may be slightly different.

The reading, mathematics, and science tests are reported on developmental scales, which yield rulers to measure growth in these subject areas across time. Just like height in inches, on average, student scores are expected to go up every year. Also like height, the rate of growth is somewhat faster in the earlier grades than in later grades. Social studies scores are not reported on a developmental scale because the specific content covered at each grade is different.

Developmental scale scores on end-of-grade tests can be used to chart the average educational growth of students as they progress through the grades. Given the way the scales were developed, the differences in mathematics scores between grades in 1992-93 can provide a standard for comparing average growth across grade levels for the future, e.g., between where students were at the end of the third grade versus where they are at the end of the fourth grade. This *anticipated growth* varies from grade level to grade level and from subject to subject. Each year test results can be used to chart the *actual growth* of students from grade level to grade level within a subject. Schools and school systems may use the

developmental scale scores to compare their own mean scale scores to the state average to evaluate the performance of their students. Scale scores can be averaged and relative comparisons made within each subject and across groups including schools and school systems.

It is not appropriate to compare developmental scale scores across subjects (i.e., mathematics vs. reading) because the typical growth across grades for each subject is different. It is appropriate to compare scale scores within subjects and types of tests (i.e., open-ended and multiple-choice) across years.

Achievement Levels. Achievement levels allow the comparison of student and group performance to standards based on what is expected in each subject at each grade level. Achievement levels were determined by relating the judgments of thousands of North Carolina teachers concerning the performance of each of their students to each student's performance (Contrasting Groups Method) on the end-of-grade multiple-choice tests. The four levels are:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful at the next grade level.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills in this subject area and are minimally prepared to be successful at the next grade level.

Level III: Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Level IV: Students performing at this level consistently perform in a superior

manner clearly beyond that required to be proficient at grade level work.

Each achievement level corresponds to a range of scale scores for each subject and grade level. The scale score ranges for each subject and grade are presented below.

Ranges for Achievement Levels by Subject and Grade Grades 3-8

Reading and Mathematics Scale Scores

| Subject/Grade | | Level I | Level II | Level III | Level IV |
|---------------|-----|---------|----------|-----------|----------|
| Reading | PT3 | 119-127 | 128-132 | 133-144 | 145-162 |
| | 3 | 115-130 | 131-140 | 141-150 | 151-172 |
| | 4 | 119-134 | 135-144 | 145-155 | 156-174 |
| | 5 | 124-138 | 139-148 | 149-158 | 159-178 |
| | 6 | 128-140 | 141-151 | 152-161 | 162-180 |
| | 7 | 130-144 | 145-154 | 155-163 | 164-183 |
| | 8 | 132-144 | 145-155 | 156-165 | 166-184 |
| Mathematics | PT3 | 105-117 | 118-125 | 126-134 | 135-154 |
| | 3 | 98-124 | 125-137 | 138-149 | 150-173 |
| | 4 | 111-131 | 132-142 | 143-155 | 156-182 |
| | 5 | 117-140 | 141-149 | 150-160 | 161-188 |
| | 6 | 130-145 | 146-154 | 155-167 | 168-196 |
| | 7 | 134-151 | 152-160 | 161-172 | 173-203 |
| | 8 | 137-154 | 155-164 | 165-177 | 178-208 |

Science Scale Scores

| Grade | Level I | Level II | Level III | Level IV |
|-------|---------|----------|-----------|----------|
| 3 | 119-132 | 133-143 | 144-155 | 156-180 |
| 4 | 122-136 | 137-147 | 148-159 | 160-182 |
| 5 | 128-141 | 142-150 | 151-161 | 162-187 |
| 6 | 130-141 | 142-151 | 152-161 | 162-188 |
| 7 | 134-145 | 146-153 | 154-164 | 165-189 |
| 8 | 134-145 | 146-154 | 155-166 | 167-190 |

Social Studies Scale Scores

| Grade | Level I | Level II | Level III | Level IV |
|-------|---------|----------|-----------|----------|
| 3 | 25-40 | 41-50 | 51-60 | 61-79 |
| 4 | 26-41 | 42-50 | 51-61 | 62-85 |
| 5 | 25-41 | 42-51 | 52-62 | 63-85 |
| 6 | 29-39 | 40-49 | 50-59 | 60-85 |
| 7 | 26-40 | 41-49 | 50-60 | 61-85 |
| 8 | 28-39 | 40-48 | 49-58 | 59-86 |

North Carolina Writing Assessment at Grades 4 and 7

| Writing | Level I | Level II | Level III | Level IV |
|---------|-----------|-----------|-----------|-----------|
| 4 & 7 | 0.0 - 1.0 | 1.5 - 2.0 | 2.5 - 3.0 | 3.5 - 4.0 |

North Carolina Open-Ended Assessments

| Grade | Level I | Level II | Level III | Level IV |
|-------|---------|----------|-----------|----------|
| 4* | — | — | — | — |
| 8 | 23-37 | 38-47 | 48-59 | 60-85 |

*Achievement levels for the grade 4 North Carolina Open-Ended Assessment have not yet been established.

NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 PRETEST READING -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 94,551 | High Score | 160 |
| | | Low Score | 119 |
| Mean | 137.8 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 8.6 | 90 | 149.7 |
| | | 75 | 144.8 |
| | | 50 (Median) | 137.4 |
| Variance | 73.8 | 25 | 130.1 |
| | | 10 | 127.3 |

FREQUENCY DISTRIBUTION

| Developmental Scale | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|---------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 160 | 1 | 94551 | 0.0 | 100.0 | 99 |
| 159 | 0 | 94550 | 0.0 | 100.0 | 99 |
| 158 | 281 | 94550 | 0.3 | 100.0 | 99 |
| 157 | 436 | 94269 | 0.5 | 99.7 | 99 |
| 156 | 738 | 93833 | 0.8 | 99.2 | 99 |
| 155 | 1089 | 93095 | 1.2 | 98.5 | 98 |
| 154 | 372 | 92006 | 0.4 | 97.3 | 97 |
| 153 | 1929 | 91634 | 2.0 | 96.9 | 96 |
| 152 | 1956 | 89705 | 2.1 | 94.9 | 94 |
| 151 | 1592 | 87749 | 1.7 | 92.8 | 92 |
| 150 | 1413 | 86157 | 1.5 | 91.1 | 90 |
| 149 | 3437 | 84744 | 3.6 | 89.6 | 88 |
| 148 | 2348 | 81307 | 2.5 | 86.0 | 85 |
| 147 | 1681 | 78959 | 1.8 | 83.5 | 83 |
| 146 | 4258 | 77278 | 4.5 | 81.7 | 79 |
| 145 | 2886 | 73020 | 3.1 | 77.2 | 76 |
| 144 | 1698 | 70134 | 1.8 | 74.2 | 73 |
| 143 | 4858 | 68436 | 5.1 | 72.4 | 70 |
| 142 | 3404 | 63578 | 3.6 | 67.2 | 65 |
| 141 | 3617 | 60174 | 3.8 | 63.6 | 62 |
| 140 | 1514 | 56557 | 1.6 | 59.8 | 59 |
| 139 | 3777 | 55043 | 4.0 | 58.2 | 56 |
| 138 | 3822 | 51266 | 4.0 | 54.2 | 52 |
| 137 | 1560 | 47444 | 1.7 | 50.2 | 49 |
| 136 | 3893 | 45884 | 4.1 | 48.5 | 46 |
| 135 | 3719 | 41991 | 3.9 | 44.4 | 42 |
| 134 | 1688 | 38272 | 1.8 | 40.5 | 40 |
| 133 | 3758 | 36584 | 4.0 | 38.7 | 37 |
| 132 | 1891 | 32826 | 2.0 | 34.7 | 34 |
| 131 | 5628 | 30935 | 6.0 | 32.7 | 30 |
| 130 | 3745 | 25307 | 4.0 | 26.8 | 25 |
| 129 | 5661 | 21562 | 6.0 | 22.8 | 20 |
| 128 | 5231 | 15901 | 5.5 | 16.8 | 14 |
| 127 | 5740 | 10670 | 6.1 | 11.3 | 8 |
| 126 | 2722 | 4930 | 2.9 | 5.2 | 4 |
| 125 | 437 | 2208 | 0.5 | 2.3 | 2 |
| 124 | 864 | 1771 | 0.9 | 1.9 | 1 |
| 123 | 501 | 907 | 0.5 | 1.0 | 1 |
| LESS THAN 123 | 406 | 406 | 0.4 | 0.4 | 1 |

NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 PRETEST MATHEMATICS -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students with Valid Scores | 94,846 | High Score | 154 |
| Mean | 130.0 | Low Score | 105 |
| Standard Deviation | 8.1 | 1996 State Percentiles | Scale Score |
| Variance | 65.5 | 90 | 140.7 |
| | | 75 | 135.7 |
| | | 50 (Median) | 130.0 |
| | | 25 | 124.1 |
| | | 10 | 119.3 |

FREQUENCY DISTRIBUTION

| Developmental Scale | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|---------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 154 | 6 | 94846 | 0.0 | 100.0 | 99 |
| 153 | 38 | 94840 | 0.0 | 100.0 | 99 |
| 152 | 9 | 94802 | 0.0 | 100.0 | 99 |
| 151 | 187 | 94793 | 0.2 | 99.9 | 99 |
| 150 | 28 | 94606 | 0.0 | 99.8 | 99 |
| 149 | 471 | 94578 | 0.5 | 99.7 | 99 |
| 148 | 49 | 94107 | 0.1 | 99.2 | 99 |
| 147 | 907 | 94058 | 1.0 | 99.2 | 99 |
| 146 | 399 | 93151 | 0.4 | 98.2 | 98 |
| 145 | 1030 | 92752 | 1.1 | 97.8 | 97 |
| 144 | 1781 | 91722 | 1.9 | 96.7 | 96 |
| 143 | 1405 | 89941 | 1.5 | 94.8 | 94 |
| 142 | 1669 | 88536 | 1.8 | 93.4 | 92 |
| 141 | 1864 | 86867 | 2.0 | 91.6 | 91 |
| 140 | 2800 | 85003 | 3.0 | 89.6 | 88 |
| 139 | 1884 | 82203 | 2.0 | 86.7 | 86 |
| 138 | 3246 | 80319 | 3.4 | 84.7 | 83 |
| 137 | 3326 | 77073 | 3.5 | 81.3 | 80 |
| 136 | 3447 | 73747 | 3.6 | 77.8 | 76 |
| 135 | 3624 | 70300 | 3.8 | 74.1 | 72 |
| 134 | 3787 | 66676 | 4.0 | 70.3 | 68 |
| 133 | 3832 | 62889 | 4.0 | 66.3 | 64 |
| 132 | 5101 | 59057 | 5.4 | 62.3 | 60 |
| 131 | 4242 | 53956 | 4.5 | 56.9 | 55 |
| 130 | 4297 | 49714 | 4.5 | 52.4 | 50 |
| 129 | 4386 | 45417 | 4.6 | 47.9 | 46 |
| 128 | 4339 | 41031 | 4.8 | 43.3 | 41 |
| 127 | 4325 | 36692 | 4.6 | 38.7 | 36 |
| 126 | 4180 | 32367 | 4.4 | 34.1 | 32 |
| 125 | 2606 | 28187 | 2.8 | 29.7 | 28 |
| 124 | 4164 | 25581 | 4.4 | 27.0 | 25 |
| 123 | 3791 | 21417 | 4.0 | 22.6 | 21 |
| 122 | 2397 | 17626 | 2.5 | 18.9 | 17 |
| 121 | 3242 | 15229 | 3.4 | 16.1 | 14 |
| 120 | 2092 | 11987 | 2.2 | 12.6 | 12 |
| 119 | 2519 | 9895 | 2.7 | 10.4 | 9 |
| 118 | 1514 | 7376 | 1.6 | 7.8 | 7 |
| 117 | 1276 | 5862 | 1.4 | 6.2 | 6 |
| 116 | 1473 | 4586 | 1.6 | 4.8 | 4 |
| 115 | 807 | 3113 | 0.9 | 3.3 | 3 |
| 114 | 545 | 2306 | 0.6 | 2.4 | 2 |
| 113 | 622 | 1761 | 0.7 | 1.9 | 2 |
| 112 | 382 | 1139 | 0.4 | 1.2 | 1 |
| 111 | 199 | 757 | 0.2 | 0.8 | 1 |
| LESS THAN 111 | 558 | 558 | 0.6 | 0.6 | 1 |

GRADE 3 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|---------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 101,525 | HIGH SCORE | 172 |
| | | LOW SCORE | 114 |
| MEAN | 146.4 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.7 | 90 | 158.30 |
| | | 75 | 153.61 |
| VARIANCE | 94.2 | 50 (MEDIAN) | 147.19 |
| | | 25 | 139.90 |
| | | 10 | 132.58 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 172 | 27 | 100525 | 0.03 | 100.00 | 99 |
| 171 | 37 | 100498 | 0.04 | 99.97 | 99 |
| 170 | 48 | 100461 | 0.05 | 99.94 | 99 |
| 169 | 72 | 100413 | 0.07 | 99.89 | 99 |
| 168 | 167 | 100341 | 0.17 | 99.82 | 99 |
| 167 | 133 | 100174 | 0.13 | 99.65 | 99 |
| 166 | 612 | 100041 | 0.61 | 99.52 | 99 |
| 165 | 241 | 99429 | 0.24 | 98.91 | 99 |
| 164 | 1108 | 99188 | 1.10 | 98.67 | 98 |
| 163 | 362 | 98080 | 0.36 | 97.57 | 97 |
| 162 | 2073 | 97718 | 2.06 | 97.21 | 96 |
| 160 | 2738 | 95645 | 2.72 | 95.15 | 94 |
| 159 | 2070 | 92907 | 2.06 | 92.42 | 91 |
| 158 | 1848 | 90837 | 1.84 | 90.36 | 89 |
| 157 | 3361 | 88989 | 3.34 | 88.52 | 87 |
| 156 | 3543 | 85628 | 3.52 | 85.18 | 83 |
| 155 | 3512 | 82085 | 3.49 | 81.66 | 80 |
| 154 | 3566 | 78573 | 3.55 | 78.16 | 76 |
| 153 | 3522 | 75007 | 3.50 | 74.62 | 73 |
| 152 | 3505 | 71485 | 3.49 | 71.11 | 69 |
| 151 | 4578 | 67980 | 4.55 | 67.62 | 65 |
| 150 | 5471 | 63402 | 5.44 | 63.07 | 60 |
| 149 | 3147 | 57931 | 3.13 | 57.63 | 56 |
| 148 | 2986 | 54784 | 2.97 | 54.50 | 53 |
| 147 | 4909 | 51798 | 4.88 | 51.53 | 49 |
| 146 | 2863 | 46889 | 2.85 | 46.64 | 45 |
| 145 | 4654 | 44026 | 4.63 | 43.80 | 41 |
| 144 | 3518 | 39372 | 3.50 | 39.17 | 37 |
| 143 | 3248 | 35854 | 3.23 | 35.67 | 34 |
| 142 | 3330 | 32606 | 3.31 | 32.44 | 31 |
| 141 | 2771 | 29276 | 2.76 | 29.12 | 28 |
| 140 | 2283 | 26505 | 2.27 | 26.37 | 25 |
| 139 | 2793 | 24222 | 2.78 | 24.10 | 23 |
| 138 | 2535 | 21429 | 2.52 | 21.32 | 20 |
| 137 | 1879 | 18894 | 1.87 | 18.80 | 18 |
| 136 | 1892 | 17015 | 1.88 | 16.93 | 16 |
| 135 | 1851 | 15123 | 1.84 | 15.04 | 14 |
| 134 | 1727 | 13272 | 1.72 | 13.20 | 12 |
| 133 | 1626 | 11545 | 1.62 | 11.48 | 11 |
| 132 | 1565 | 9919 | 1.56 | 9.87 | 9 |
| 131 | 1454 | 8354 | 1.45 | 8.31 | 8 |
| 130 | 1364 | 6900 | 1.36 | 6.86 | 6 |
| 129 | 410 | 5536 | 0.41 | 5.51 | 5 |
| 128 | 796 | 5126 | 0.79 | 5.10 | 5 |
| 127 | 1079 | 4330 | 1.07 | 4.31 | 4 |
| 126 | 937 | 3251 | 0.93 | 3.23 | 3 |
| 125 | 909 | 2314 | 0.90 | 2.30 | 2 |
| 124 | 511 | 1405 | 0.51 | 1.40 | 1 |
| 123 | 351 | 894 | 0.35 | 0.89 | 1 |
| 122 | 247 | 543 | 0.25 | 0.54 | 1 |
| LESS THAN 122 | 296 | 296 | 0.29 | 0.29 | 1 |

GRADE 3 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|---------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 101,021 | HIGH SCORE | 173 |
| | | LOW SCORE | 100 |
| MEAN | 142.9 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 11.1 | 90 | 156.44 |
| | | 75 | 150.95 |
| VARIANCE | 123.7 | 50 (MEDIAN) | 143.59 |
| | | 25 | 135.59 |
| | | 10 | 127.55 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 173 | 53 | 101021 | 0.05 | 100.00 | 99 |
| 171 | 147 | 100968 | 0.15 | 99.95 | 99 |
| 170 | 129 | 100821 | 0.13 | 99.80 | 99 |
| 168 | 360 | 100692 | 0.36 | 99.67 | 99 |
| 167 | 260 | 100332 | 0.26 | 99.32 | 99 |
| 165 | 640 | 100072 | 0.63 | 99.06 | 99 |
| 164 | 379 | 99432 | 0.38 | 98.43 | 98 |
| 162 | 1415 | 99053 | 1.40 | 98.05 | 97 |
| 161 | 1275 | 97638 | 1.26 | 96.65 | 96 |
| 160 | 648 | 96363 | 0.64 | 95.39 | 95 |
| 159 | 2214 | 95715 | 2.19 | 94.75 | 94 |
| 157 | 2431 | 93501 | 2.41 | 92.56 | 91 |
| 156 | 2464 | 91070 | 2.44 | 90.15 | 89 |
| 155 | 2790 | 88606 | 2.76 | 87.71 | 86 |
| 154 | 2842 | 85816 | 2.81 | 84.95 | 84 |
| 153 | 2046 | 82974 | 2.03 | 82.14 | 81 |
| 152 | 2955 | 80928 | 2.93 | 80.11 | 79 |
| 151 | 4049 | 77973 | 4.01 | 77.18 | 75 |
| 150 | 3015 | 73924 | 2.98 | 73.18 | 72 |
| 149 | 2850 | 70909 | 2.82 | 70.19 | 69 |
| 148 | 2993 | 68059 | 2.96 | 67.37 | 66 |
| 147 | 3795 | 65066 | 3.76 | 64.41 | 63 |
| 146 | 3855 | 61271 | 3.82 | 60.65 | 59 |
| 145 | 3654 | 57416 | 3.62 | 56.84 | 55 |
| 144 | 3572 | 53762 | 3.54 | 53.22 | 51 |
| 143 | 3267 | 50190 | 3.23 | 49.68 | 48 |
| 142 | 3947 | 46923 | 3.91 | 46.45 | 44 |
| 141 | 2980 | 42976 | 2.95 | 42.54 | 41 |
| 140 | 3630 | 39996 | 3.59 | 39.59 | 38 |
| 139 | 3440 | 36366 | 3.41 | 36.00 | 34 |
| 138 | 2620 | 32926 | 2.59 | 32.59 | 31 |
| 137 | 2988 | 30306 | 2.96 | 30.00 | 29 |
| 136 | 2277 | 27318 | 2.25 | 27.04 | 26 |
| 135 | 2777 | 25041 | 2.75 | 24.79 | 23 |
| 134 | 2021 | 22264 | 2.00 | 22.04 | 21 |
| 133 | 2390 | 20243 | 2.37 | 20.04 | 19 |
| 132 | 1895 | 17853 | 1.88 | 17.67 | 17 |
| 131 | 1653 | 15958 | 1.64 | 15.80 | 15 |
| 130 | 1630 | 14305 | 1.61 | 14.16 | 13 |
| 129 | 1548 | 12675 | 1.53 | 12.55 | 12 |
| 128 | 1077 | 11127 | 1.07 | 11.01 | 10 |
| 127 | 1685 | 10050 | 1.67 | 9.95 | 9 |
| 126 | 1231 | 8365 | 1.22 | 8.28 | 8 |
| 125 | 810 | 7134 | 0.80 | 7.06 | 7 |
| 124 | 758 | 6324 | 0.75 | 6.26 | 6 |
| 123 | 970 | 5566 | 0.96 | 5.51 | 5 |
| 122 | 682 | 4596 | 0.68 | 4.55 | 4 |
| 121 | 573 | 3914 | 0.57 | 3.87 | 4 |
| 120 | 671 | 3341 | 0.66 | 3.31 | 3 |
| 119 | 436 | 2670 | 0.43 | 2.64 | 2 |
| 118 | 460 | 2234 | 0.46 | 2.21 | 2 |
| 117 | 360 | 1774 | 0.36 | 1.76 | 2 |
| 116 | 312 | 1414 | 0.31 | 1.40 | 1 |
| 115 | 262 | 1102 | 0.26 | 1.09 | 1 |
| LESS THAN 115 | 840 | 840 | 0.83 | 0.83 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 4 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 97,911 | HIGH SCORE | 176 |
| | | LOW SCORE | 119 |
| MEAN | 149.5 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.4 | 90 | 161.18 |
| | | 75 | 156.14 |
| | | 50 (MEDIAN) | 150.32 |
| VARIANCE | 87.9 | 25 | 143.19 |
| | | 10 | 136.11 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 176 | 12 | 97911 | 0.01 | 100.00 | 99 |
| 175 | 10 | 97899 | 0.01 | 99.99 | 99 |
| 174 | 25 | 97889 | 0.03 | 99.98 | 99 |
| 173 | 66 | 97864 | 0.07 | 99.95 | 99 |
| 172 | 52 | 97798 | 0.05 | 99.88 | 99 |
| 171 | 258 | 97746 | 0.26 | 99.83 | 99 |
| 170 | 146 | 97488 | 0.15 | 99.57 | 99 |
| 169 | 489 | 97342 | 0.50 | 99.42 | 99 |
| 168 | 286 | 96853 | 0.29 | 98.92 | 99 |
| 167 | 728 | 96567 | 0.74 | 98.63 | 98 |
| 166 | 902 | 95839 | 0.92 | 97.88 | 97 |
| 165 | 524 | 94937 | 0.54 | 96.96 | 97 |
| 164 | 1766 | 94413 | 1.80 | 96.43 | 96 |
| 163 | 1331 | 92647 | 1.36 | 94.62 | 94 |
| 162 | 2373 | 91316 | 2.42 | 93.26 | 92 |
| 161 | 2539 | 88943 | 2.59 | 90.84 | 90 |
| 160 | 2729 | 86404 | 2.79 | 88.25 | 87 |
| 159 | 2893 | 83675 | 2.95 | 85.46 | 84 |
| 158 | 2952 | 80782 | 3.01 | 82.51 | 81 |
| 157 | 2948 | 77830 | 3.01 | 79.49 | 78 |
| 156 | 4012 | 74882 | 4.10 | 76.48 | 74 |
| 155 | 4041 | 70870 | 4.13 | 72.38 | 70 |
| 154 | 3798 | 66829 | 3.88 | 68.25 | 66 |
| 153 | 4864 | 63031 | 4.97 | 64.38 | 62 |
| 152 | 3796 | 58167 | 3.88 | 59.41 | 57 |
| 151 | 4611 | 54371 | 4.71 | 55.53 | 53 |
| 150 | 4388 | 49760 | 4.48 | 50.82 | 49 |
| 149 | 3214 | 45372 | 3.28 | 46.34 | 45 |
| 148 | 3887 | 42158 | 3.97 | 43.06 | 41 |
| 147 | 4286 | 38271 | 4.38 | 39.09 | 37 |
| 146 | 2688 | 33985 | 2.75 | 34.71 | 33 |
| 145 | 3307 | 31297 | 3.38 | 31.96 | 30 |
| 144 | 2435 | 27990 | 2.49 | 28.59 | 27 |
| 143 | 3429 | 25555 | 3.50 | 26.10 | 24 |
| 142 | 1647 | 22126 | 1.68 | 22.60 | 22 |
| 141 | 3087 | 20479 | 3.15 | 20.92 | 19 |
| 140 | 1466 | 17392 | 1.50 | 17.76 | 17 |
| 139 | 2011 | 15926 | 2.05 | 16.27 | 15 |
| 138 | 2265 | 13915 | 2.31 | 14.21 | 13 |
| 137 | 1348 | 11650 | 1.38 | 11.90 | 11 |
| 136 | 1298 | 10302 | 1.33 | 10.52 | 10 |
| 135 | 1750 | 9004 | 1.79 | 9.20 | 8 |
| 134 | 1200 | 7254 | 1.23 | 7.41 | 7 |
| 133 | 1151 | 6054 | 1.18 | 6.18 | 6 |
| 132 | 1053 | 4903 | 1.08 | 5.01 | 4 |
| 131 | 940 | 3850 | 0.96 | 3.93 | 3 |
| 130 | 785 | 2910 | 0.80 | 2.97 | 3 |
| 129 | 664 | 2125 | 0.68 | 2.17 | 2 |
| 128 | 485 | 1461 | 0.50 | 1.49 | 1 |
| LESS THAN 128 | 976 | 976 | 1.00 | 1.00 | 1 |

GRADE 4 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 98,391 | HIGH SCORE | 182 |
| | | LOW SCORE | 112 |
| MEAN | 152.2 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.3 | 90 | 165.44 |
| | | 75 | 159.85 |
| | | 50 (MEDIAN) | 152.88 |
| VARIANCE | 106.4 | 25 | 145.29 |
| | | 10 | 138.17 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 182 | 6 | 98391 | 0.01 | 100.00 | 99 |
| 181 | 28 | 98385 | 0.03 | 99.99 | 99 |
| 180 | 30 | 98357 | 0.03 | 99.97 | 99 |
| 178 | 82 | 98327 | 0.08 | 99.93 | 99 |
| 177 | 138 | 98245 | 0.14 | 99.85 | 99 |
| 176 | 157 | 98107 | 0.16 | 99.71 | 99 |
| 175 | 162 | 97950 | 0.16 | 99.55 | 99 |
| 174 | 441 | 97788 | 0.45 | 99.39 | 99 |
| 173 | 258 | 97347 | 0.26 | 98.94 | 99 |
| 172 | 622 | 97089 | 0.63 | 98.68 | 98 |
| 171 | 733 | 96467 | 0.74 | 98.04 | 98 |
| 170 | 920 | 95734 | 0.94 | 97.30 | 97 |
| 169 | 429 | 94814 | 0.44 | 96.36 | 96 |
| 168 | 1686 | 94385 | 1.71 | 95.93 | 95 |
| 167 | 1925 | 92699 | 1.96 | 94.21 | 93 |
| 166 | 2140 | 90774 | 2.17 | 92.26 | 91 |
| 165 | 1337 | 88634 | 1.36 | 90.08 | 89 |
| 164 | 2366 | 87297 | 2.40 | 88.72 | 88 |
| 163 | 2401 | 84931 | 2.44 | 86.32 | 85 |
| 162 | 2561 | 82530 | 2.60 | 83.88 | 83 |
| 161 | 3310 | 79969 | 3.36 | 81.28 | 80 |
| 160 | 4384 | 76659 | 4.46 | 77.91 | 76 |
| 159 | 2683 | 72275 | 2.73 | 73.46 | 72 |
| 158 | 3459 | 69592 | 3.52 | 70.73 | 69 |
| 157 | 3391 | 66133 | 3.45 | 67.21 | 65 |
| 156 | 3340 | 62742 | 3.39 | 63.77 | 62 |
| 155 | 4221 | 59402 | 4.29 | 60.37 | 58 |
| 154 | 4069 | 55181 | 4.14 | 56.08 | 54 |
| 153 | 3108 | 51112 | 3.16 | 51.95 | 50 |
| 152 | 3802 | 48004 | 3.86 | 48.79 | 47 |
| 151 | 2935 | 44202 | 2.98 | 44.92 | 43 |
| 150 | 4328 | 41267 | 4.40 | 41.94 | 40 |
| 149 | 2020 | 36939 | 2.05 | 37.54 | 37 |
| 148 | 4043 | 34919 | 4.11 | 35.49 | 33 |
| 147 | 3134 | 30876 | 3.19 | 31.38 | 30 |
| 146 | 2391 | 27742 | 2.43 | 28.20 | 27 |
| 145 | 3580 | 25351 | 3.64 | 25.77 | 24 |
| 144 | 1664 | 21771 | 1.69 | 22.13 | 21 |
| 143 | 3048 | 20107 | 3.10 | 20.44 | 19 |
| 142 | 1431 | 17059 | 1.45 | 17.34 | 17 |
| 141 | 2319 | 15628 | 2.36 | 15.88 | 15 |
| 140 | 1807 | 13309 | 1.84 | 13.53 | 13 |
| 139 | 1189 | 11502 | 1.21 | 11.69 | 11 |
| 138 | 1445 | 10313 | 1.47 | 10.48 | 10 |
| 137 | 1389 | 8868 | 1.41 | 9.01 | 8 |
| 136 | 925 | 7479 | 0.94 | 7.60 | 7 |
| 135 | 1212 | 6554 | 1.23 | 6.66 | 6 |
| 134 | 1083 | 5342 | 1.10 | 5.43 | 5 |
| 133 | 722 | 4259 | 0.73 | 4.33 | 4 |
| 132 | 644 | 3537 | 0.65 | 3.59 | 3 |
| 131 | 568 | 2893 | 0.58 | 2.94 | 3 |
| 130 | 487 | 2325 | 0.49 | 2.36 | 2 |
| 129 | 376 | 1838 | 0.38 | 1.87 | 2 |

GRADE 4 MATHEMATICS --- 1999

FREQUENCY DISTRIBUTION (CONTINUED)

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 128 | 355 | 1462 | 0.36 | 1.49 | 1 |
| 127 | 289 | 1107 | 0.29 | 1.13 | 1 |
| 126 | 224 | 818 | 0.23 | 0.83 | 1 |
| 125 | 203 | 594 | 0.21 | 0.60 | 1 |
| 124 | 137 | 391 | 0.14 | 0.40 | 1 |
| 123 | 126 | 254 | 0.13 | 0.26 | 1 |
| 122 | 43 | 128 | 0.04 | 0.13 | 1 |
| LESS THAN 122 | 85 | 85 | 0.09 | 0.09 | 1 |

STATE NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 5 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 94,801 | HIGH SCORE | 178 |
| | | LOW SCORE | 126 |
| MEAN | 154.3 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 8.5 | 90 | 164.61 |
| | | 75 | 160.50 |
| VARIANCE | 72.5 | 50 (MEDIAN) | 155.13 |
| | | 25 | 148.77 |
| | | 10 | 142.31 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 178 | 28 | 94801 | 0.03 | 100.00 | 99 |
| 176 | 95 | 94773 | 0.10 | 99.97 | 99 |
| 175 | 71 | 94678 | 0.07 | 99.87 | 99 |
| 173 | 477 | 94607 | 0.50 | 99.80 | 99 |
| 171 | 903 | 94130 | 0.95 | 99.29 | 99 |
| 169 | 1376 | 93227 | 1.45 | 98.34 | 98 |
| 168 | 1152 | 91851 | 1.22 | 96.89 | 96 |
| 167 | 1453 | 90699 | 1.53 | 95.67 | 95 |
| 166 | 1614 | 89246 | 1.70 | 94.14 | 93 |
| 165 | 2587 | 87632 | 2.73 | 92.44 | 91 |
| 164 | 2896 | 85045 | 3.05 | 89.71 | 88 |
| 163 | 3001 | 82149 | 3.17 | 86.65 | 85 |
| 162 | 4986 | 79148 | 5.26 | 83.49 | 81 |
| 161 | 3062 | 74162 | 3.23 | 78.23 | 77 |
| 160 | 4114 | 71100 | 4.34 | 75.00 | 73 |
| 159 | 3222 | 66986 | 3.40 | 70.66 | 69 |
| 158 | 6047 | 63764 | 6.38 | 67.26 | 64 |
| 157 | 3000 | 57717 | 3.16 | 60.88 | 59 |
| 156 | 5707 | 54717 | 6.02 | 57.72 | 55 |
| 155 | 4319 | 49010 | 4.56 | 51.70 | 49 |
| 154 | 4142 | 44691 | 4.37 | 47.14 | 45 |
| 153 | 3917 | 40549 | 4.13 | 42.77 | 41 |
| 152 | 4342 | 36632 | 4.58 | 38.64 | 36 |
| 151 | 3415 | 32290 | 3.60 | 34.06 | 32 |
| 150 | 3140 | 28875 | 3.31 | 30.46 | 29 |
| 149 | 2793 | 25735 | 2.95 | 27.15 | 26 |
| 148 | 3344 | 22942 | 3.53 | 24.20 | 22 |
| 147 | 2502 | 19598 | 2.64 | 20.67 | 19 |
| 146 | 1986 | 17096 | 2.09 | 18.03 | 17 |
| 145 | 2174 | 15110 | 2.29 | 15.94 | 15 |
| 144 | 1692 | 12936 | 1.78 | 13.65 | 13 |
| 143 | 1537 | 11244 | 1.62 | 11.86 | 11 |
| 142 | 1196 | 9707 | 1.26 | 10.24 | 10 |
| 141 | 1437 | 8511 | 1.52 | 8.98 | 8 |
| 140 | 1387 | 7074 | 1.46 | 7.46 | 7 |
| 139 | 997 | 5687 | 1.05 | 6.00 | 5 |
| 138 | 896 | 4690 | 0.95 | 4.95 | 4 |
| 137 | 801 | 3794 | 0.84 | 4.00 | 4 |
| 136 | 720 | 2993 | 0.76 | 3.16 | 3 |
| 135 | 634 | 2273 | 0.67 | 2.40 | 2 |
| 134 | 670 | 1639 | 0.71 | 1.73 | 1 |
| 133 | 413 | 969 | 0.44 | 1.02 | 1 |
| LESS THAN 133 | 556 | 556 | 0.59 | 0.59 | 1 |

STATE NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 5 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 95,258 | HIGH SCORE | 185 |
| | | LOW SCORE | 123 |
| MEAN | 159.2 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.0 | 90 | 171.98 |
| | | 75 | 166.38 |
| | | 50 (MEDIAN) | 159.64 |
| VARIANCE | 100.9 | 25 | 152.47 |
| | | 10 | 145.41 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 185 | 43 | 95258 | 0.05 | 100.00 | 99 |
| 184 | 142 | 95215 | 0.15 | 99.95 | 99 |
| 183 | 181 | 95073 | 0.19 | 99.81 | 99 |
| 182 | 373 | 94892 | 0.39 | 99.62 | 99 |
| 181 | 114 | 94519 | 0.12 | 99.22 | 99 |
| 180 | 524 | 94405 | 0.55 | 99.10 | 99 |
| 179 | 514 | 93881 | 0.54 | 98.55 | 98 |
| 178 | 606 | 93367 | 0.64 | 98.01 | 98 |
| 177 | 753 | 92761 | 0.79 | 97.38 | 97 |
| 176 | 1210 | 92008 | 1.27 | 96.59 | 96 |
| 175 | 1349 | 90798 | 1.42 | 95.32 | 95 |
| 174 | 950 | 89449 | 1.00 | 93.90 | 93 |
| 173 | 1592 | 88499 | 1.67 | 92.90 | 92 |
| 172 | 2256 | 86907 | 2.37 | 91.23 | 90 |
| 171 | 1801 | 84651 | 1.89 | 88.86 | 88 |
| 170 | 2549 | 82850 | 2.68 | 86.97 | 86 |
| 169 | 2597 | 80301 | 2.73 | 84.30 | 83 |
| 168 | 2601 | 77704 | 2.73 | 81.57 | 80 |
| 167 | 3339 | 75103 | 3.51 | 78.84 | 77 |
| 166 | 2737 | 71764 | 2.87 | 75.34 | 74 |
| 165 | 4032 | 69027 | 4.23 | 72.46 | 70 |
| 164 | 3504 | 64995 | 3.68 | 68.23 | 66 |
| 163 | 3383 | 61491 | 3.55 | 64.55 | 63 |
| 162 | 4134 | 58108 | 4.34 | 61.00 | 59 |
| 161 | 3429 | 53974 | 3.60 | 56.66 | 55 |
| 160 | 3403 | 50545 | 3.57 | 53.06 | 51 |
| 159 | 3384 | 47142 | 3.55 | 49.49 | 48 |
| 158 | 4026 | 43758 | 4.23 | 45.94 | 44 |
| 157 | 3966 | 39732 | 4.16 | 41.71 | 40 |
| 156 | 2575 | 35766 | 2.70 | 37.55 | 36 |
| 155 | 3872 | 33191 | 4.06 | 34.84 | 33 |
| 154 | 3079 | 29319 | 3.23 | 30.78 | 29 |
| 153 | 2317 | 26240 | 2.43 | 27.55 | 26 |
| 152 | 3463 | 23923 | 3.64 | 25.11 | 23 |
| 151 | 1660 | 20460 | 1.74 | 21.48 | 21 |
| 150 | 2073 | 18800 | 2.18 | 19.74 | 19 |
| 149 | 2688 | 16727 | 2.82 | 17.56 | 16 |
| 148 | 1819 | 14039 | 1.91 | 14.74 | 14 |
| 147 | 1325 | 12220 | 1.39 | 12.83 | 12 |
| 146 | 1261 | 10895 | 1.32 | 11.44 | 11 |
| 145 | 1192 | 9634 | 1.25 | 10.11 | 9 |
| 144 | 1510 | 8442 | 1.59 | 8.86 | 8 |
| 143 | 1353 | 6932 | 1.42 | 7.28 | 7 |
| 142 | 878 | 5579 | 0.92 | 5.86 | 5 |
| 141 | 1069 | 4701 | 1.12 | 4.94 | 4 |
| 140 | 670 | 3632 | 0.70 | 3.81 | 3 |
| 139 | 647 | 2962 | 0.68 | 3.11 | 3 |
| 138 | 537 | 2315 | 0.56 | 2.43 | 2 |
| 137 | 405 | 1778 | 0.43 | 1.87 | 2 |
| 136 | 366 | 1373 | 0.38 | 1.44 | 1 |
| 135 | 320 | 1007 | 0.34 | 1.06 | 1 |
| 134 | 238 | 687 | 0.25 | 0.72 | 1 |
| 133 | 195 | 449 | 0.20 | 0.47 | 1 |
| LESS THAN 133 | 254 | 254 | 0.27 | 0.27 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 6 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 93,589 | HIGH SCORE | 183 |
| | | LOW SCORE | 124 |
| MEAN | 156.7 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.3 | 90 | 168.27 |
| | | 75 | 163.53 |
| | | 50 (MEDIAN) | 157.37 |
| VARIANCE | 86.8 | 25 | 150.79 |
| | | 10 | 143.48 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 183 | 15 | 93589 | 0.02 | 100.00 | 99 |
| 180 | 131 | 93574 | 0.14 | 99.98 | 99 |
| 178 | 148 | 93443 | 0.16 | 99.84 | 99 |
| 177 | 232 | 93295 | 0.25 | 99.69 | 99 |
| 176 | 273 | 93063 | 0.29 | 99.44 | 99 |
| 175 | 259 | 92790 | 0.28 | 99.15 | 99 |
| 174 | 691 | 92531 | 0.74 | 98.87 | 99 |
| 173 | 918 | 91840 | 0.98 | 98.13 | 98 |
| 172 | 435 | 90922 | 0.46 | 97.15 | 97 |
| 171 | 1842 | 90487 | 1.97 | 96.69 | 96 |
| 170 | 1420 | 88645 | 1.52 | 94.72 | 94 |
| 169 | 2357 | 87225 | 2.52 | 93.20 | 92 |
| 168 | 2722 | 84868 | 2.91 | 90.68 | 89 |
| 167 | 1790 | 82146 | 1.91 | 87.77 | 87 |
| 166 | 3049 | 80356 | 3.26 | 85.86 | 84 |
| 165 | 4149 | 77307 | 4.43 | 82.60 | 80 |
| 164 | 3044 | 73158 | 3.25 | 78.17 | 77 |
| 163 | 3103 | 70114 | 3.32 | 74.92 | 73 |
| 162 | 4023 | 67011 | 4.30 | 71.60 | 69 |
| 161 | 3970 | 62988 | 4.24 | 67.30 | 65 |
| 160 | 4631 | 59018 | 4.95 | 63.06 | 61 |
| 159 | 4392 | 54387 | 4.69 | 58.11 | 56 |
| 158 | 2583 | 49995 | 2.76 | 53.42 | 52 |
| 157 | 4939 | 47412 | 5.28 | 50.66 | 48 |
| 156 | 3839 | 42473 | 4.10 | 45.38 | 43 |
| 155 | 3536 | 38634 | 3.78 | 41.28 | 39 |
| 154 | 3521 | 35098 | 3.76 | 37.50 | 36 |
| 153 | 3262 | 31577 | 3.49 | 33.74 | 32 |
| 152 | 2435 | 28315 | 2.60 | 30.25 | 29 |
| 151 | 3508 | 25880 | 3.75 | 27.65 | 26 |
| 150 | 2155 | 22372 | 2.30 | 23.90 | 23 |
| 149 | 1997 | 20217 | 2.13 | 21.60 | 21 |
| 148 | 2555 | 18220 | 2.73 | 19.47 | 18 |
| 147 | 1864 | 15665 | 1.99 | 16.74 | 16 |
| 146 | 1337 | 13801 | 1.43 | 14.75 | 14 |
| 145 | 1327 | 12464 | 1.42 | 13.32 | 13 |
| 144 | 1745 | 11137 | 1.86 | 11.90 | 11 |
| 143 | 1468 | 9392 | 1.57 | 10.04 | 9 |
| 142 | 1071 | 7924 | 1.14 | 8.47 | 8 |
| 141 | 1361 | 6853 | 1.45 | 7.32 | 7 |
| 140 | 902 | 5492 | 0.96 | 5.87 | 5 |
| 139 | 866 | 4590 | 0.93 | 4.90 | 4 |
| 138 | 805 | 3724 | 0.86 | 3.98 | 4 |
| 137 | 714 | 2919 | 0.76 | 3.12 | 3 |
| 136 | 674 | 2205 | 0.72 | 2.36 | 2 |
| 135 | 432 | 1531 | 0.46 | 1.64 | 1 |
| 134 | 379 | 1099 | 0.40 | 1.17 | 1 |
| 133 | 297 | 720 | 0.32 | 0.77 | 1 |
| LESS THAN 133 | 423 | 423 | 0.45 | 0.45 | 1 |

STATE NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 6 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 93,824 | HIGH SCORE | 196 |
| | | LOW SCORE | 130 |
| MEAN | 164.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.9 | 90 | 178.74 |
| | | 75 | 172.61 |
| | | 50 (MEDIAN) | 165.03 |
| VARIANCE | 118.1 | 25 | 156.97 |
| | | 10 | 149.93 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 196 | 5 | 93824 | 0.01 | 100.00 | 99 |
| 195 | 23 | 93819 | 0.02 | 99.99 | 99 |
| 193 | 49 | 93796 | 0.05 | 99.97 | 99 |
| 192 | 39 | 93747 | 0.04 | 99.92 | 99 |
| 191 | 176 | 93708 | 0.19 | 99.88 | 99 |
| 190 | 87 | 93532 | 0.09 | 99.69 | 99 |
| 189 | 222 | 93445 | 0.24 | 99.60 | 99 |
| 188 | 480 | 93223 | 0.51 | 99.36 | 99 |
| 187 | 405 | 92743 | 0.43 | 98.85 | 99 |
| 186 | 406 | 92338 | 0.43 | 98.42 | 98 |
| 185 | 847 | 91932 | 0.90 | 97.98 | 98 |
| 184 | 963 | 91085 | 1.03 | 97.08 | 97 |
| 183 | 1017 | 90122 | 1.08 | 96.05 | 96 |
| 182 | 1111 | 89105 | 1.18 | 94.97 | 94 |
| 181 | 1207 | 87994 | 1.29 | 93.79 | 93 |
| 180 | 1270 | 86787 | 1.35 | 92.50 | 92 |
| 179 | 1406 | 85517 | 1.50 | 91.15 | 90 |
| 178 | 2369 | 84111 | 2.52 | 89.65 | 88 |
| 177 | 1897 | 81742 | 2.02 | 87.12 | 86 |
| 176 | 1964 | 79845 | 2.09 | 85.10 | 84 |
| 175 | 2713 | 77881 | 2.89 | 83.01 | 82 |
| 174 | 3305 | 75168 | 3.52 | 80.12 | 78 |
| 173 | 1672 | 71863 | 1.78 | 76.59 | 76 |
| 172 | 3332 | 70191 | 3.55 | 74.81 | 73 |
| 171 | 2807 | 66859 | 2.99 | 71.26 | 70 |
| 170 | 2936 | 64052 | 3.13 | 68.27 | 67 |
| 169 | 2437 | 61116 | 2.60 | 65.14 | 64 |
| 168 | 3615 | 58679 | 3.85 | 62.54 | 61 |
| 167 | 3129 | 55064 | 3.33 | 58.69 | 57 |
| 166 | 3193 | 51935 | 3.40 | 55.35 | 54 |
| 165 | 3927 | 48742 | 4.19 | 51.95 | 50 |
| 164 | 3376 | 44815 | 3.60 | 47.76 | 46 |
| 163 | 2718 | 41439 | 2.90 | 44.17 | 43 |
| 162 | 3323 | 38721 | 3.54 | 41.27 | 39 |
| 161 | 1955 | 35398 | 2.08 | 37.73 | 37 |
| 160 | 4021 | 33443 | 4.29 | 35.64 | 34 |
| 159 | 2009 | 29422 | 2.14 | 31.36 | 30 |
| 158 | 2637 | 27413 | 2.81 | 29.22 | 28 |
| 157 | 2496 | 24776 | 2.66 | 26.41 | 25 |
| 156 | 2655 | 22280 | 2.83 | 23.75 | 22 |
| 155 | 1903 | 19625 | 2.03 | 20.92 | 20 |
| 154 | 1864 | 17722 | 1.99 | 18.89 | 18 |
| 153 | 2321 | 15858 | 2.47 | 16.90 | 16 |
| 152 | 1643 | 13537 | 1.75 | 14.43 | 14 |
| 151 | 1600 | 11894 | 1.71 | 12.68 | 12 |
| 150 | 1591 | 10294 | 1.70 | 10.97 | 10 |
| 149 | 1484 | 8703 | 1.58 | 9.28 | 8 |
| 148 | 1252 | 7219 | 1.33 | 7.69 | 7 |
| 147 | 882 | 5967 | 0.94 | 6.36 | 6 |
| 146 | 1056 | 5085 | 1.13 | 5.42 | 5 |
| 145 | 999 | 4029 | 1.06 | 4.29 | 4 |
| 144 | 790 | 3030 | 0.84 | 3.23 | 3 |
| 143 | 661 | 2240 | 0.70 | 2.39 | 2 |

FREQUENCY DISTRIBUTION (CONTINUED)

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 142 | 629 | 1579 | 0.67 | 1.68 | 1 |
| 141 | 416 | 950 | 0.44 | 1.01 | 1 |
| 140 | 201 | 534 | 0.21 | 0.57 | 1 |
| 139 | 125 | 333 | 0.13 | 0.35 | 1 |
| 138 | 97 | 208 | 0.10 | 0.22 | 1 |
| LESS THAN 138 | 111 | 111 | 0.12 | 0.12 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 7 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 92,021 | HIGH SCORE | 183 |
| | | LOW SCORE | 129 |
| MEAN | 159.9 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 8.2 | 90 | 169.75 |
| | | 75 | 165.68 |
| | | 50 (MEDIAN) | 160.89 |
| VARIANCE | 67.3 | 25 | 155.04 |
| | | 10 | 148.28 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 183 | 13 | 92021 | 0.01 | 100.00 | 99 |
| 181 | 107 | 92008 | 0.12 | 99.99 | 99 |
| 179 | 77 | 91901 | 0.08 | 99.87 | 99 |
| 178 | 261 | 91824 | 0.28 | 99.79 | 99 |
| 176 | 732 | 91563 | 0.80 | 99.50 | 99 |
| 175 | 415 | 90831 | 0.45 | 98.71 | 98 |
| 174 | 898 | 90416 | 0.98 | 98.26 | 98 |
| 173 | 1078 | 89518 | 1.17 | 97.28 | 97 |
| 172 | 1285 | 88440 | 1.40 | 96.11 | 95 |
| 171 | 2300 | 87155 | 2.50 | 94.71 | 93 |
| 170 | 2709 | 84855 | 2.94 | 92.21 | 91 |
| 169 | 2920 | 82146 | 3.17 | 89.27 | 88 |
| 168 | 3171 | 79226 | 3.45 | 86.10 | 84 |
| 167 | 3383 | 76055 | 3.68 | 82.65 | 81 |
| 166 | 4481 | 72672 | 4.87 | 78.97 | 77 |
| 165 | 4452 | 68191 | 4.84 | 74.10 | 72 |
| 164 | 4305 | 63739 | 4.68 | 69.27 | 67 |
| 163 | 5212 | 59434 | 5.66 | 64.59 | 62 |
| 162 | 4952 | 54222 | 5.38 | 58.92 | 56 |
| 161 | 5371 | 49270 | 5.84 | 53.54 | 51 |
| 160 | 4103 | 43899 | 4.46 | 47.71 | 45 |
| 159 | 4595 | 39796 | 4.99 | 43.25 | 41 |
| 158 | 3390 | 35201 | 3.68 | 38.25 | 36 |
| 157 | 3990 | 31811 | 4.34 | 34.57 | 32 |
| 156 | 3556 | 27821 | 3.86 | 30.23 | 28 |
| 155 | 2737 | 24265 | 2.97 | 26.37 | 25 |
| 154 | 3143 | 21528 | 3.42 | 23.39 | 22 |
| 153 | 1918 | 18385 | 2.08 | 19.98 | 19 |
| 152 | 2260 | 16467 | 2.46 | 17.89 | 17 |
| 151 | 1966 | 14207 | 2.14 | 15.44 | 14 |
| 150 | 1628 | 12241 | 1.77 | 13.30 | 12 |
| 149 | 1117 | 10613 | 1.21 | 11.53 | 11 |
| 148 | 1310 | 9496 | 1.42 | 10.32 | 10 |
| 147 | 1276 | 8186 | 1.39 | 8.90 | 8 |
| 146 | 939 | 6910 | 1.02 | 7.51 | 7 |
| 145 | 1163 | 5971 | 1.26 | 6.49 | 6 |
| 144 | 813 | 4808 | 0.88 | 5.22 | 5 |
| 143 | 731 | 3995 | 0.79 | 4.34 | 4 |
| 142 | 678 | 3264 | 0.74 | 3.55 | 3 |
| 141 | 587 | 2586 | 0.64 | 2.81 | 2 |
| 140 | 742 | 1999 | 0.81 | 2.17 | 2 |
| 139 | 361 | 1257 | 0.39 | 1.37 | 1 |
| 138 | 279 | 896 | 0.30 | 0.97 | 1 |
| LESS THAN 138 | 617 | 617 | 0.67 | 0.67 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 7 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 92,151 | HIGH SCORE | 203 |
| | | LOW SCORE | 134 |
| MEAN | 170.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.6 | 90 | 184.66 |
| | | 75 | 178.35 |
| | | 50 (MEDIAN) | 171.07 |
| VARIANCE | 112.2 | 25 | 163.59 |
| | | 10 | 156.53 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 203 | 3 | 92151 | 0.00 | 100.00 | 99 |
| 201 | 28 | 92148 | 0.03 | 100.00 | 99 |
| 199 | 14 | 92120 | 0.02 | 99.97 | 99 |
| 198 | 135 | 92106 | 0.15 | 99.95 | 99 |
| 197 | 87 | 91971 | 0.09 | 99.80 | 99 |
| 196 | 187 | 91884 | 0.20 | 99.71 | 99 |
| 195 | 260 | 91697 | 0.28 | 99.51 | 99 |
| 194 | 125 | 91437 | 0.14 | 99.23 | 99 |
| 193 | 503 | 91312 | 0.55 | 99.09 | 99 |
| 192 | 454 | 90809 | 0.49 | 98.54 | 98 |
| 191 | 450 | 90355 | 0.49 | 98.05 | 98 |
| 190 | 847 | 89905 | 0.92 | 97.56 | 97 |
| 189 | 905 | 89058 | 0.98 | 96.64 | 96 |
| 188 | 1069 | 88153 | 1.16 | 95.66 | 95 |
| 187 | 1095 | 87084 | 1.19 | 94.50 | 94 |
| 186 | 1297 | 85989 | 1.41 | 93.31 | 93 |
| 185 | 2096 | 84692 | 2.27 | 91.91 | 91 |
| 184 | 1787 | 82596 | 1.94 | 89.63 | 89 |
| 183 | 1712 | 80809 | 1.86 | 87.69 | 87 |
| 182 | 2183 | 79097 | 2.37 | 85.83 | 85 |
| 181 | 1971 | 76914 | 2.14 | 83.47 | 82 |
| 180 | 2405 | 74943 | 2.61 | 81.33 | 80 |
| 179 | 3047 | 72538 | 3.31 | 78.72 | 77 |
| 178 | 2584 | 69491 | 2.80 | 75.41 | 74 |
| 177 | 3212 | 66907 | 3.49 | 72.61 | 71 |
| 176 | 2808 | 63695 | 3.05 | 69.12 | 68 |
| 175 | 3500 | 60887 | 3.80 | 66.07 | 64 |
| 174 | 3630 | 57387 | 3.94 | 62.27 | 60 |
| 173 | 3135 | 53757 | 3.40 | 58.34 | 57 |
| 172 | 3141 | 50622 | 3.41 | 54.93 | 53 |
| 171 | 3245 | 47481 | 3.52 | 51.53 | 50 |
| 170 | 3428 | 44236 | 3.72 | 48.00 | 46 |
| 169 | 2670 | 40808 | 2.90 | 44.28 | 43 |
| 168 | 4203 | 38138 | 4.56 | 41.39 | 39 |
| 167 | 2079 | 33935 | 2.26 | 36.83 | 36 |
| 166 | 3453 | 31856 | 3.75 | 34.57 | 33 |
| 165 | 2859 | 28403 | 3.10 | 30.82 | 29 |
| 164 | 2751 | 25544 | 2.99 | 27.72 | 26 |
| 163 | 2764 | 22793 | 3.00 | 24.73 | 23 |
| 162 | 1955 | 20029 | 2.12 | 21.73 | 21 |
| 161 | 1919 | 18074 | 2.08 | 19.61 | 19 |
| 160 | 1914 | 16155 | 2.08 | 17.53 | 16 |
| 159 | 1742 | 14241 | 1.89 | 15.45 | 15 |
| 158 | 1702 | 12499 | 1.85 | 13.56 | 13 |
| 157 | 1624 | 10797 | 1.76 | 11.72 | 11 |
| 156 | 1068 | 9173 | 1.16 | 9.95 | 9 |
| 155 | 982 | 8105 | 1.07 | 8.80 | 8 |
| 154 | 1276 | 7123 | 1.38 | 7.73 | 7 |
| 153 | 1168 | 5847 | 1.27 | 6.35 | 6 |
| 152 | 1045 | 4679 | 1.13 | 5.08 | 5 |
| 151 | 878 | 3634 | 0.95 | 3.94 | 3 |
| 150 | 782 | 2756 | 0.85 | 2.99 | 3 |
| 149 | 569 | 1974 | 0.62 | 2.14 | 2 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 7 MATHEMATICS --- 1999

FREQUENCY DISTRIBUTION (CONTINUED)

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 148 | 457 | 1405 | 0.50 | 1.52 | 1 |
| 147 | 304 | 948 | 0.33 | 1.03 | 1 |
| 146 | 273 | 644 | 0.30 | 0.70 | 1 |
| 145 | 135 | 371 | 0.15 | 0.40 | 1 |
| LESS THAN 145 | 236 | 236 | 0.26 | 0.26 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 8 READING --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 90,330 | HIGH SCORE | 187 |
| | | LOW SCORE | 132 |
| MEAN | 162.3 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 8.4 | 90 | 172.49 |
| | | 75 | 168.12 |
| | | 50 (MEDIAN) | 163.11 |
| VARIANCE | 70.0 | 25 | 157.14 |
| | | 10 | 150.39 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 187 | 2 | 90330 | 0.00 | 100.00 | 99 |
| 186 | 12 | 90328 | 0.01 | 100.00 | 99 |
| 185 | 3 | 90316 | 0.00 | 99.98 | 99 |
| 184 | 44 | 90313 | 0.05 | 99.98 | 99 |
| 183 | 22 | 90269 | 0.02 | 99.93 | 99 |
| 182 | 202 | 90247 | 0.22 | 99.91 | 99 |
| 181 | 155 | 90045 | 0.17 | 99.68 | 99 |
| 180 | 280 | 89890 | 0.31 | 99.51 | 99 |
| 179 | 217 | 89610 | 0.24 | 99.20 | 99 |
| 178 | 527 | 89393 | 0.58 | 98.96 | 99 |
| 177 | 1114 | 88866 | 1.23 | 98.38 | 98 |
| 176 | 434 | 87752 | 0.48 | 97.15 | 97 |
| 175 | 1585 | 87318 | 1.75 | 96.67 | 96 |
| 174 | 2029 | 85733 | 2.25 | 94.91 | 94 |
| 173 | 2369 | 83704 | 2.62 | 92.66 | 91 |
| 172 | 2643 | 81335 | 2.93 | 90.04 | 89 |
| 171 | 2781 | 78692 | 3.08 | 87.12 | 86 |
| 170 | 2969 | 75911 | 3.29 | 84.04 | 82 |
| 169 | 3173 | 72942 | 3.51 | 80.75 | 79 |
| 168 | 5341 | 69769 | 5.91 | 77.24 | 74 |
| 167 | 4256 | 64428 | 4.71 | 71.33 | 69 |
| 166 | 3086 | 60172 | 3.42 | 66.61 | 65 |
| 165 | 5222 | 57086 | 5.78 | 63.20 | 60 |
| 164 | 4931 | 51864 | 5.46 | 57.42 | 55 |
| 163 | 4534 | 46933 | 5.02 | 51.96 | 49 |
| 162 | 3542 | 42399 | 3.92 | 46.94 | 45 |
| 161 | 4884 | 38857 | 5.41 | 43.02 | 40 |
| 160 | 3675 | 33973 | 4.07 | 37.61 | 36 |
| 159 | 3408 | 30298 | 3.77 | 33.54 | 32 |
| 158 | 3233 | 26890 | 3.58 | 29.77 | 28 |
| 157 | 2973 | 23657 | 3.29 | 26.19 | 25 |
| 156 | 2561 | 20684 | 2.84 | 22.90 | 21 |
| 155 | 2877 | 18123 | 3.18 | 20.06 | 18 |
| 154 | 1353 | 15246 | 1.50 | 16.88 | 16 |
| 153 | 2430 | 13893 | 2.69 | 15.38 | 14 |
| 152 | 1130 | 11463 | 1.25 | 12.69 | 12 |
| 151 | 1083 | 10333 | 1.20 | 11.44 | 11 |
| 150 | 1972 | 9250 | 2.18 | 10.24 | 9 |
| 149 | 805 | 7278 | 0.89 | 8.06 | 8 |
| 148 | 830 | 6473 | 0.92 | 7.17 | 7 |
| 147 | 815 | 5643 | 0.90 | 6.25 | 6 |
| 146 | 793 | 4828 | 0.88 | 5.34 | 5 |
| 145 | 1153 | 4035 | 1.28 | 4.47 | 4 |
| 144 | 814 | 2882 | 0.90 | 3.19 | 3 |
| 143 | 506 | 2068 | 0.56 | 2.29 | 2 |
| 142 | 408 | 1562 | 0.45 | 1.73 | 2 |
| 141 | 355 | 1154 | 0.39 | 1.28 | 1 |
| 140 | 445 | 799 | 0.49 | 0.88 | 1 |
| LESS THAN 140 | 354 | 354 | 0.39 | 0.39 | 1 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 8 MATHEMATICS --- 1999

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 90,396 | HIGH SCORE | 208 |
| | | LOW SCORE | 138 |
| MEAN | 174.1 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 12.0 | 90 | 189.80 |
| | | 75 | 182.80 |
| | | 50 (MEDIAN) | 174.09 |
| VARIANCE | 143.6 | 25 | 165.71 |
| | | 10 | 157.70 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 208 | 26 | 90396 | 0.03 | 100.00 | 99 |
| 207 | 35 | 90370 | 0.04 | 99.97 | 99 |
| 206 | 47 | 90335 | 0.05 | 99.93 | 99 |
| 205 | 75 | 90288 | 0.08 | 99.88 | 99 |
| 204 | 79 | 90213 | 0.09 | 99.80 | 99 |
| 203 | 87 | 90134 | 0.10 | 99.71 | 99 |
| 202 | 191 | 90047 | 0.21 | 99.61 | 99 |
| 201 | 244 | 89856 | 0.27 | 99.40 | 99 |
| 200 | 116 | 89612 | 0.13 | 99.13 | 99 |
| 199 | 484 | 89496 | 0.54 | 99.00 | 99 |
| 198 | 362 | 89012 | 0.40 | 98.47 | 98 |
| 197 | 667 | 88650 | 0.74 | 98.07 | 98 |
| 196 | 769 | 87983 | 0.85 | 97.33 | 97 |
| 195 | 849 | 87214 | 0.94 | 96.48 | 96 |
| 194 | 918 | 86365 | 1.02 | 95.54 | 95 |
| 193 | 999 | 85447 | 1.11 | 94.53 | 94 |
| 192 | 1095 | 84448 | 1.21 | 93.42 | 93 |
| 191 | 1133 | 83353 | 1.25 | 92.21 | 92 |
| 190 | 1229 | 82220 | 1.36 | 90.96 | 90 |
| 189 | 1695 | 80991 | 1.88 | 89.60 | 89 |
| 188 | 2147 | 79296 | 2.38 | 87.72 | 87 |
| 187 | 1282 | 77149 | 1.42 | 85.35 | 85 |
| 186 | 2814 | 75867 | 3.11 | 83.93 | 82 |
| 185 | 1437 | 73053 | 1.59 | 80.81 | 80 |
| 184 | 1971 | 71616 | 2.18 | 79.22 | 78 |
| 183 | 2640 | 69645 | 2.92 | 77.04 | 76 |
| 182 | 2144 | 67005 | 2.37 | 74.12 | 73 |
| 181 | 2802 | 64861 | 3.10 | 71.75 | 70 |
| 180 | 2184 | 62059 | 2.42 | 68.65 | 67 |
| 179 | 3585 | 59875 | 3.97 | 66.24 | 64 |
| 178 | 1749 | 56290 | 1.93 | 62.27 | 61 |
| 177 | 3019 | 54541 | 3.34 | 60.34 | 59 |
| 176 | 2507 | 51522 | 2.77 | 57.00 | 56 |
| 175 | 2469 | 49015 | 2.73 | 54.22 | 53 |
| 174 | 3292 | 46546 | 3.64 | 51.49 | 50 |
| 173 | 2585 | 43254 | 2.86 | 47.85 | 46 |
| 172 | 2728 | 40669 | 3.02 | 44.99 | 43 |
| 171 | 3406 | 37941 | 3.77 | 41.97 | 40 |
| 170 | 2070 | 34535 | 2.29 | 38.20 | 37 |
| 169 | 2172 | 32465 | 2.40 | 35.91 | 35 |
| 168 | 3397 | 30293 | 3.76 | 33.51 | 32 |
| 167 | 2743 | 26896 | 3.03 | 29.75 | 28 |
| 166 | 1975 | 24153 | 2.18 | 26.72 | 26 |
| 165 | 1913 | 22178 | 2.12 | 24.53 | 23 |
| 164 | 2063 | 20265 | 2.28 | 22.42 | 21 |
| 163 | 1779 | 18202 | 1.97 | 20.14 | 19 |
| 162 | 1817 | 16423 | 2.01 | 18.17 | 17 |
| 161 | 1836 | 14606 | 2.03 | 16.16 | 15 |
| 160 | 1698 | 12770 | 1.88 | 14.13 | 13 |
| 159 | 1632 | 11072 | 1.81 | 12.25 | 11 |
| 158 | 503 | 9440 | 0.56 | 10.44 | 10 |
| 157 | 1485 | 8937 | 1.64 | 9.89 | 9 |
| 156 | 1374 | 7452 | 1.52 | 8.24 | 7 |

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STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

GRADE 8 MATHEMATICS --- 1999

FREQUENCY DISTRIBUTION (CONTINUED)

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1999 STATE PERCENTILE |
|---------------------------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 155 | 1173 | 6078 | 1.30 | 6.72 | 6 |
| 154 | 787 | 4905 | 0.87 | 5.43 | 5 |
| 153 | 981 | 4118 | 1.09 | 4.56 | 4 |
| 152 | 850 | 3137 | 0.94 | 3.47 | 3 |
| 151 | 694 | 2287 | 0.77 | 2.53 | 2 |
| 150 | 521 | 1593 | 0.58 | 1.76 | 1 |
| 149 | 371 | 1072 | 0.41 | 1.19 | 1 |
| 148 | 242 | 701 | 0.27 | 0.78 | 1 |
| 147 | 181 | 459 | 0.20 | 0.51 | 1 |
| 146 | 105 | 278 | 0.12 | 0.31 | 1 |
| 145 | 89 | 173 | 0.10 | 0.19 | 1 |
| 144 | 36 | 84 | 0.04 | 0.09 | 1 |
| 143 | 19 | 48 | 0.02 | 0.05 | 1 |
| 142 | 8 | 29 | 0.01 | 0.03 | 1 |
| 141 | 3 | 21 | 0.00 | 0.02 | 1 |
| 140 | 5 | 18 | 0.01 | 0.02 | 1 |
| LESS THAN 140 | 13 | 13 | 0.01 | 0.01 | 1 |

Open-Ended Assessment Norms

BEST COPY AVAILABLE

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

OPEN-ENDED GRADE 8 READING --- 1996-97

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 86,479 | HIGH SCORE | 79 |
| | | LOW SCORE | 12 |
| MEAN | 46.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.0 | 90 | 59.68 |
| | | 75 | 53.87 |
| VARIANCE | 100.9 | 50 (MEDIAN) | 47.84 |
| | | 25 | 40.16 |
| | | 10 | 34.84 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 79 | 27 | 86479 | 0.03 | 100.00 | 99 |
| 78 | 0 | 86452 | 0.00 | 99.97 | 99 |
| 77 | 0 | 86452 | 0.00 | 99.97 | 99 |
| 76 | 0 | 86452 | 0.00 | 99.97 | 99 |
| 75 | 93 | 86452 | 0.11 | 99.97 | 99 |
| 74 | 0 | 86359 | 0.00 | 99.86 | 99 |
| 73 | 0 | 86359 | 0.00 | 99.86 | 99 |
| 72 | 263 | 86359 | 0.30 | 99.86 | 99 |
| 71 | 0 | 86096 | 0.00 | 99.56 | 99 |
| 70 | 0 | 86096 | 0.00 | 99.56 | 99 |
| 69 | 614 | 86096 | 0.71 | 99.56 | 99 |
| 68 | 0 | 85482 | 0.00 | 98.85 | 99 |
| 67 | 0 | 85482 | 0.00 | 98.85 | 98 |
| 66 | 1306 | 85482 | 1.51 | 98.85 | 98 |
| 65 | 0 | 84176 | 0.00 | 97.34 | 98 |
| 64 | 0 | 84176 | 0.00 | 97.34 | 97 |
| 63 | 2539 | 84176 | 2.94 | 97.34 | 97 |
| 62 | 0 | 81637 | 0.00 | 94.40 | 96 |
| 61 | 0 | 81637 | 0.00 | 94.40 | 95 |
| 60 | 4659 | 81637 | 5.39 | 94.40 | 94 |
| 59 | 0 | 76978 | 0.00 | 89.01 | 92 |
| 58 | 0 | 76978 | 0.00 | 89.01 | 91 |
| 57 | 6737 | 76978 | 7.79 | 89.01 | 89 |
| 56 | 0 | 70241 | 0.00 | 81.22 | 86 |
| 55 | 0 | 70241 | 0.00 | 81.22 | 84 |
| 54 | 8610 | 70241 | 9.96 | 81.22 | 81 |
| 53 | 0 | 61631 | 0.00 | 71.27 | 78 |
| 52 | 0 | 61631 | 0.00 | 71.27 | 74 |
| 51 | 10459 | 61631 | 12.09 | 71.27 | 71 |
| 50 | 0 | 51172 | 0.00 | 59.17 | 67 |
| 49 | 0 | 51172 | 0.00 | 59.17 | 63 |
| 48 | 12079 | 51172 | 13.97 | 59.17 | 59 |
| 47 | 0 | 39093 | 0.00 | 45.21 | 56 |
| 46 | 0 | 39093 | 0.00 | 45.21 | 52 |
| 45 | 0 | 39093 | 0.00 | 45.21 | 49 |
| 44 | 13146 | 39093 | 15.20 | 45.21 | 45 |
| 43 | 0 | 25947 | 0.00 | 30.00 | 41 |
| 42 | 0 | 25947 | 0.00 | 30.00 | 38 |
| 41 | 0 | 25947 | 0.00 | 30.00 | 34 |
| 40 | 12875 | 25947 | 14.89 | 30.00 | 30 |
| 39 | 0 | 13072 | 0.00 | 15.12 | 27 |
| 38 | 0 | 13072 | 0.00 | 15.12 | 24 |
| 37 | 0 | 13072 | 0.00 | 15.12 | 21 |
| 36 | 0 | 13072 | 0.00 | 15.12 | 18 |
| 35 | 6674 | 13072 | 7.72 | 15.12 | 15 |
| 34 | 0 | 6398 | 0.00 | 7.40 | 13 |
| 33 | 0 | 6398 | 0.00 | 7.40 | 12 |
| 32 | 0 | 6398 | 0.00 | 7.40 | 10 |
| 31 | 0 | 6398 | 0.00 | 7.40 | 9 |
| 30 | 3030 | 6398 | 3.50 | 7.40 | 7 |

STATE

NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

OPEN-ENDED GRADE 8 READING --- 1996-97

FREQUENCY DISTRIBUTION (CONTINUED)

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 29 | 0 | 3368 | 0.00 | 3.89 | 6 |
| 28 | 0 | 3368 | 0.00 | 3.89 | 5 |
| 27 | 0 | 3368 | 0.00 | 3.89 | 5 |
| 26 | 0 | 3368 | 0.00 | 3.89 | 4 |
| 25 | 1523 | 3368 | 1.76 | 3.89 | 3 |
| 24 | 0 | 1845 | 0.00 | 2.13 | 3 |
| 23 | 0 | 1845 | 0.00 | 2.13 | 3 |
| 22 | 0 | 1845 | 0.00 | 2.13 | 2 |
| 21 | 845 | 1845 | 0.98 | 2.13 | 2 |
| 20 | 0 | 1000 | 0.00 | 1.16 | 2 |
| 19 | 0 | 1000 | 0.00 | 1.16 | 2 |
| 18 | 0 | 1000 | 0.00 | 1.16 | 1 |
| 17 | 0 | 1000 | 0.00 | 1.16 | 1 |
| 16 | 506 | 1000 | 0.59 | 1.16 | 1 |
| 15 | 0 | 494 | 0.00 | 0.57 | 1 |
| 14 | 0 | 494 | 0.00 | 0.57 | 1 |
| 13 | 0 | 494 | 0.00 | 0.57 | 1 |
| 12 | 494 | 494 | 0.57 | 0.57 | 1 |

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NORTH CAROLINA END-OF-GRADE TESTING PROGRAM

OPEN-ENDED GRADE 8 MATHEMATICS --- 1996-97

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 86,479 | HIGH SCORE | 78 |
| | | LOW SCORE | 35 |
| MEAN | 50.0 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.3 | 90 | 64.11 |
| | | 75 | 57.00 |
| VARIANCE | 106.1 | 50 (MEDIAN) | 49.65 |
| | | 25 | 42.28 |
| | | 10 | 35.16 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 78 | 413 | 86479 | 0.48 | 100.00 | 99 |
| 77 | 0 | 86066 | 0.00 | 99.52 | 99 |
| 76 | 0 | 86066 | 0.00 | 99.52 | 99 |
| 75 | 0 | 86066 | 0.00 | 99.52 | 99 |
| 74 | 784 | 86066 | 0.91 | 99.52 | 99 |
| 73 | 0 | 85282 | 0.00 | 98.62 | 99 |
| 72 | 1441 | 85282 | 1.67 | 98.62 | 98 |
| 71 | 0 | 83841 | 0.00 | 96.95 | 97 |
| 70 | 0 | 83841 | 0.00 | 96.95 | 97 |
| 69 | 2073 | 83841 | 2.40 | 96.95 | 96 |
| 68 | 0 | 81768 | 0.00 | 94.55 | 95 |
| 67 | 2670 | 81768 | 3.09 | 94.55 | 94 |
| 66 | 0 | 79098 | 0.00 | 91.46 | 93 |
| 65 | 0 | 79098 | 0.00 | 91.46 | 92 |
| 64 | 3269 | 79098 | 3.78 | 91.46 | 91 |
| 63 | 0 | 75829 | 0.00 | 87.68 | 89 |
| 62 | 3970 | 75829 | 4.59 | 87.68 | 87 |
| 61 | 0 | 71859 | 0.00 | 83.09 | 85 |
| 60 | 4379 | 71859 | 5.06 | 83.09 | 83 |
| 59 | 0 | 67480 | 0.00 | 78.03 | 81 |
| 58 | 0 | 67480 | 0.00 | 78.03 | 80 |
| 57 | 5250 | 67480 | 6.07 | 78.03 | 78 |
| 56 | 0 | 62230 | 0.00 | 71.96 | 75 |
| 55 | 5894 | 62230 | 6.82 | 71.96 | 71 |
| 54 | 0 | 56336 | 0.00 | 65.14 | 68 |
| 53 | 6670 | 56336 | 7.71 | 65.14 | 65 |
| 52 | 0 | 49666 | 0.00 | 57.43 | 62 |
| 51 | 0 | 49666 | 0.00 | 57.43 | 60 |
| 50 | 7537 | 49666 | 8.72 | 57.43 | 57 |
| 49 | 0 | 42129 | 0.00 | 48.72 | 54 |
| 48 | 0 | 42129 | 0.00 | 48.72 | 51 |
| 47 | 8493 | 42129 | 9.82 | 48.72 | 48 |
| 46 | 0 | 33636 | 0.00 | 38.89 | 45 |
| 45 | 0 | 33636 | 0.00 | 38.89 | 41 |
| 44 | 9641 | 33636 | 11.15 | 38.89 | 38 |
| 43 | 0 | 23995 | 0.00 | 27.75 | 33 |
| 42 | 10872 | 23995 | 12.57 | 27.75 | 27 |
| 41 | 0 | 13123 | 0.00 | 15.17 | 25 |
| 40 | 0 | 13123 | 0.00 | 15.17 | 24 |
| 39 | 0 | 13123 | 0.00 | 15.17 | 22 |
| 38 | 0 | 13123 | 0.00 | 15.17 | 20 |
| 37 | 0 | 13123 | 0.00 | 15.17 | 18 |
| 36 | 0 | 13123 | 0.00 | 15.17 | 17 |
| 35 | 13123 | 13123 | 15.17 | 15.17 | 15 |

Local Option Tests Norms

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SCIENCE -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|-------|------------------------|-------------|
| Number of Students With Valid Scores | 9,305 | High Score | 177 |
| | | Low Score | 121 |
| Mean | 145.4 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 9.8 | 90 | 158.0 |
| | | 75 | 152.7 |
| Variance | 95.9 | 50 (Median) | 145.7 |
| | | 25 | 138.0 |
| | | 10 | 132.2 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 177 | 1 | 9305 | 0.0 | 100.0 | 99 |
| 176 | 1 | 9304 | 0.0 | 100.0 | 99 |
| 175 | 1 | 9303 | 0.0 | 100.0 | 99 |
| 174 | 2 | 9302 | 0.0 | 100.0 | 99 |
| 173 | 4 | 9300 | 0.0 | 100.0 | 99 |
| 172 | 3 | 9296 | 0.0 | 99.9 | 99 |
| 171 | 10 | 9293 | 0.1 | 99.9 | 99 |
| 169 | 20 | 9283 | 0.2 | 99.8 | 99 |
| 168 | 19 | 9263 | 0.2 | 99.6 | 99 |
| 167 | 20 | 9244 | 0.2 | 99.3 | 99 |
| 166 | 65 | 9224 | 0.7 | 99.1 | 99 |
| 165 | 75 | 9159 | 0.8 | 98.4 | 98 |
| 164 | 34 | 9084 | 0.4 | 97.6 | 97 |
| 163 | 65 | 9050 | 0.7 | 97.3 | 97 |
| 162 | 72 | 8985 | 0.8 | 96.6 | 96 |
| 161 | 144 | 8913 | 1.6 | 95.8 | 95 |
| 160 | 164 | 8769 | 1.8 | 94.2 | 93 |
| 159 | 126 | 8605 | 1.4 | 92.5 | 92 |
| 158 | 206 | 8479 | 2.2 | 91.1 | 90 |
| 157 | 230 | 8273 | 2.5 | 88.9 | 88 |
| 156 | 253 | 8043 | 2.7 | 86.4 | 85 |
| 155 | 302 | 7790 | 3.3 | 83.7 | 82 |
| 154 | 289 | 7488 | 3.1 | 80.5 | 79 |
| 153 | 274 | 7199 | 2.9 | 77.4 | 76 |
| 152 | 339 | 6925 | 3.6 | 74.4 | 73 |
| 151 | 332 | 6586 | 3.6 | 70.8 | 69 |
| 150 | 292 | 6254 | 3.1 | 67.2 | 66 |
| 149 | 393 | 5962 | 4.2 | 64.1 | 62 |
| 148 | 346 | 5569 | 3.7 | 59.9 | 58 |
| 147 | 360 | 5223 | 3.9 | 56.1 | 54 |
| 146 | 253 | 4863 | 2.7 | 52.3 | 51 |
| 145 | 278 | 4610 | 3.0 | 49.5 | 48 |
| 144 | 366 | 4332 | 3.9 | 46.6 | 45 |
| 143 | 215 | 3966 | 2.3 | 42.6 | 41 |
| 142 | 410 | 3751 | 4.4 | 40.3 | 38 |
| 141 | 112 | 3341 | 1.2 | 35.9 | 35 |
| 140 | 434 | 3229 | 4.7 | 34.7 | 32 |
| 139 | 279 | 2795 | 3.0 | 30.0 | 29 |
| 138 | 381 | 2516 | 4.1 | 27.0 | 25 |
| 137 | 116 | 2135 | 1.3 | 22.9 | 22 |
| 136 | 249 | 2019 | 2.7 | 21.7 | 20 |
| 135 | 348 | 1770 | 3.7 | 19.0 | 17 |
| 134 | 104 | 1422 | 1.1 | 15.3 | 15 |
| 133 | 330 | 1318 | 3.6 | 14.2 | 12 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SCIENCE -- 1996
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 132 | 173 | 988 | 1.9 | 10.6 | 10 |
| 131 | 149 | 815 | 1.6 | 8.8 | 8 |
| 130 | 181 | 666 | 2.0 | 7.2 | 6 |
| 129 | 173 | 485 | 1.9 | 5.2 | 4 |
| 128 | 128 | 312 | 1.4 | 3.4 | 3 |
| 127 | 67 | 184 | 0.7 | 2.0 | 2 |
| 126 | 54 | 117 | 0.6 | 1.3 | 1 |
| 125 | 41 | 63 | 0.4 | 0.7 | 1 |
| 124 | 9 | 22 | 0.1 | 0.2 | 1 |
| 123 | 7 | 13 | 0.1 | 0.1 | 1 |
| 122 | 3 | 6 | 0.0 | 0.1 | 1 |
| 121 | 3 | 3 | 0.0 | 0.0 | 1 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 3 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|--------------|
| Number of Students With Valid Scores | 88,208 | High Score | 79 |
| | | Low Score | 26 |
| Mean | 52.2 | 1994 State Percentiles | Scale Score. |
| Standard Deviation | 9.1 | 90 | 63.7 |
| | | 75 | 58.5 |
| Variance | 82.3 | 50 (Median) | 53.0 |
| | | 25 | 46.1 |
| | | 10 | 39.0 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 79 | 17 | 88208 | 0.0 | 100.0 | 99 |
| 78 | 30 | 88191 | 0.0 | 100.0 | 99 |
| 77 | 43 | 88161 | 0.1 | 100.0 | 99 |
| 76 | 55 | 88118 | 0.1 | 99.9 | 99 |
| 75 | 98 | 88063 | 0.1 | 99.8 | 99 |
| 74 | 217 | 87965 | 0.3 | 99.7 | 99 |
| 73 | 196 | 87748 | 0.2 | 99.5 | 99 |
| 72 | 218 | 87552 | 0.3 | 99.3 | 99 |
| 71 | 474 | 87334 | 0.5 | 99.0 | 99 |
| 70 | 329 | 86860 | 0.4 | 98.5 | 98 |
| 69 | 691 | 86531 | 0.8 | 98.1 | 98 |
| 68 | 1249 | 85840 | 1.4 | 97.3 | 97 |
| 66 | 1509 | 84591 | 1.7 | 95.9 | 95 |
| 65 | 1936 | 83082 | 2.2 | 94.2 | 93 |
| 64 | 2159 | 81146 | 2.5 | 92.0 | 91 |
| 63 | 2410 | 78987 | 2.7 | 89.6 | 88 |
| 62 | 1749 | 76577 | 2.0 | 86.8 | 86 |
| 61 | 2793 | 74828 | 3.2 | 84.8 | 83 |
| 60 | 2864 | 72035 | 3.3 | 81.7 | 80 |
| 59 | 3031 | 69171 | 3.4 | 78.4 | 77 |
| 58 | 4262 | 66140 | 4.8 | 75.0 | 73 |
| 57 | 4219 | 61878 | 4.8 | 70.2 | 68 |
| 56 | 3324 | 57659 | 3.8 | 65.4 | 63 |
| 55 | 4486 | 54335 | 5.1 | 61.6 | 59 |
| 54 | 3140 | 49849 | 3.6 | 56.5 | 55 |
| 53 | 4997 | 46709 | 5.7 | 53.0 | 50 |
| 52 | 2977 | 41712 | 3.4 | 47.3 | 46 |
| 51 | 2910 | 38735 | 3.3 | 43.9 | 42 |
| 50 | 3650 | 35825 | 4.1 | 40.6 | 39 |
| 49 | 3368 | 32175 | 3.8 | 36.5 | 35 |
| 48 | 3461 | 28807 | 3.9 | 32.7 | 31 |
| 47 | 2346 | 25346 | 2.7 | 28.7 | 27 |
| 46 | 2329 | 23000 | 2.6 | 26.1 | 25 |
| 45 | 2769 | 20671 | 3.1 | 23.4 | 22 |
| 44 | 2076 | 17902 | 2.4 | 20.3 | 19 |
| 43 | 1974 | 15826 | 2.2 | 17.9 | 17 |
| 42 | 1872 | 13852 | 2.1 | 15.7 | 15 |
| 41 | 1188 | 11980 | 1.4 | 13.6 | 13 |
| 40 | 1197 | 10792 | 1.4 | 12.2 | 12 |
| 39 | 1656 | 9595 | 1.9 | 10.9 | 10 |
| 38 | 1587 | 7939 | 1.8 | 9.0 | 8 |
| 37 | 1508 | 6352 | 1.7 | 7.2 | 6 |
| 36 | 1319 | 4844 | 1.5 | 5.5 | 5 |
| 35 | 1060 | 3525 | 1.2 | 4.0 | 3 |
| 34 | 554 | 2465 | 0.6 | 2.8 | 2 |
| 33 | 692 | 1911 | 0.8 | 2.2 | 2 |
| 32 | 532 | 1219 | 0.6 | 1.4 | 1 |
| 31 | 383 | 687 | 0.4 | 0.8 | 1 |
| 30 | 152 | 304 | 0.2 | 0.3 | 1 |
| 29 | 119 | 152 | 0.1 | 0.2 | 1 |
| LESS THAN 29 | 33 | 33 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SCIENCE -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 11,853 | High Score | 177 |
| | | Low Score | 126 |
| Mean | 149.5 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 9.1 | 90 | 161.5 |
| | | 75 | 156.4 |
| | | 50 (Median) | 149.7 |
| Variance | 82.1 | 25 | 142.3 |
| | | 10 | 137.0 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 177 | 2 | 11853 | 0.0 | 100.0 | 99 |
| 176 | 3 | 11851 | 0.0 | 100.0 | 99 |
| 175 | 4 | 11848 | 0.0 | 100.0 | 99 |
| 174 | 8 | 11844 | 0.1 | 99.9 | 99 |
| 173 | 8 | 11836 | 0.1 | 99.9 | 99 |
| 172 | 7 | 11828 | 0.1 | 99.8 | 99 |
| 171 | 15 | 11821 | 0.1 | 99.7 | 99 |
| 170 | 35 | 11806 | 0.3 | 99.6 | 99 |
| 169 | 28 | 11771 | 0.2 | 99.3 | 99 |
| 168 | 52 | 11743 | 0.4 | 99.1 | 99 |
| 167 | 122 | 11691 | 1.0 | 98.6 | 98 |
| 166 | 83 | 11569 | 0.7 | 97.6 | 97 |
| 165 | 103 | 11486 | 0.9 | 96.9 | 96 |
| 164 | 190 | 11383 | 1.6 | 96.0 | 95 |
| 163 | 268 | 11193 | 2.3 | 94.4 | 93 |
| 162 | 265 | 10925 | 2.2 | 92.2 | 91 |
| 161 | 305 | 10660 | 2.6 | 89.9 | 89 |
| 160 | 322 | 10355 | 2.7 | 87.4 | 86 |
| 159 | 359 | 10033 | 3.0 | 84.7 | 83 |
| 158 | 369 | 9674 | 3.1 | 81.6 | 80 |
| 157 | 395 | 9305 | 3.3 | 78.5 | 77 |
| 156 | 266 | 8910 | 2.2 | 75.2 | 74 |
| 155 | 414 | 8644 | 3.5 | 72.9 | 71 |
| 154 | 417 | 8230 | 3.5 | 69.4 | 68 |
| 153 | 576 | 7813 | 4.9 | 65.9 | 63 |
| 152 | 465 | 7237 | 3.9 | 61.1 | 59 |
| 151 | 454 | 6772 | 3.8 | 57.1 | 55 |
| 150 | 482 | 6318 | 4.1 | 53.3 | 51 |
| 149 | 471 | 5836 | 4.0 | 49.2 | 47 |
| 148 | 508 | 5365 | 4.3 | 45.3 | 43 |
| 147 | 340 | 4857 | 2.9 | 41.0 | 40 |
| 146 | 351 | 4517 | 3.0 | 38.1 | 37 |
| 145 | 362 | 4166 | 3.1 | 35.2 | 34 |
| 144 | 458 | 3804 | 3.9 | 32.1 | 30 |
| 143 | 311 | 3346 | 2.6 | 28.2 | 27 |
| 142 | 346 | 3035 | 2.9 | 25.6 | 24 |
| 141 | 455 | 2689 | 3.8 | 22.7 | 21 |
| 140 | 478 | 2234 | 4.0 | 18.9 | 17 |
| 139 | 128 | 1756 | 1.1 | 14.8 | 14 |
| 138 | 279 | 1628 | 2.4 | 13.7 | 13 |
| 137 | 351 | 1349 | 3.0 | 11.4 | 10 |
| 136 | 309 | 998 | 2.6 | 8.4 | 7 |
| 135 | 155 | 689 | 1.3 | 5.8 | 5 |
| 134 | 142 | 534 | 1.2 | 4.5 | 4 |
| 133 | 173 | 392 | 1.5 | 3.3 | 3 |
| 132 | 98 | 219 | 0.8 | 1.9 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SCIENCE -- 1996
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 131 | 77 | 121 | 0.7 | 1.0 | 1 |
| 130 | 22 | 44 | 0.2 | 0.4 | 1 |
| 129 | 9 | 22 | .0.1 | 0.2 | 1 |
| 128 | 10 | 13 | 0.1 | 0.1 | 1 |
| 127 | 1 | 3 | 0.0 | 0.0 | 1 |
| 126 | 2 | 2 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--|--------|---------------------------|----------------|
| Number of Students With Valid Scores | 84,961 | High Score | 82 |
| | | Low Score | 27 |
| Mean | 52.7 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 9.0 | 90 | 64.2 |
| | | 75 | 59.6 |
| Variance | 81.5 | 50 (Median) | 53.1 |
| | | 25 | 45.9 |
| | | 10 | 39.8 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 82 | 3 | 84961 | 0.0 | 100.0 | 99 |
| 81 | 4 | 84958 | 0.0 | 100.0 | 99 |
| 80 | 7 | 84954 | 0.0 | 100.0 | 99 |
| 79 | 8 | 84947 | 0.0 | 100.0 | 99 |
| 78 | 20 | 84939 | 0.0 | 100.0 | 99 |
| 77 | 21 | 84919 | 0.0 | 100.0 | 99 |
| 76 | 99 | 84898 | 0.1 | 99.9 | 99 |
| 75 | 47 | 84799 | 0.1 | 99.8 | 99 |
| 74 | 108 | 84752 | 0.1 | 99.8 | 99 |
| 73 | 258 | 84644 | 0.3 | 99.6 | 99 |
| 72 | 331 | 84386 | 0.4 | 99.3 | 99 |
| 71 | 332 | 84055 | 0.4 | 98.9 | 99 |
| 70 | 652 | 83723 | 0.8 | 98.5 | 98 |
| 69 | 815 | 83071 | 1.0 | 97.8 | 97 |
| 68 | 973 | 82256 | 1.2 | 96.8 | 96 |
| 67 | 1186 | 81283 | 1.4 | 95.7 | 95 |
| 66 | 1324 | 80097 | 1.6 | 94.3 | 93 |
| 65 | 1573 | 78773 | 1.9 | 92.7 | 92 |
| 64 | 2304 | 77200 | 2.71 | 90.87 | 90 |
| 63 | 2625 | 74896 | 3.09 | 88.15 | 87 |
| 62 | 2110 | 72271 | 2.48 | 85.06 | 84 |
| 61 | 2297 | 70161 | 2.70 | 82.58 | 81 |
| 60 | 4794 | 67864 | 5.64 | 79.88 | 77 |
| 59 | 2536 | 63070 | 2.98 | 74.23 | 73 |
| 58 | 2676 | 60534 | 3.15 | 71.25 | 70 |
| 57 | 3584 | 57858 | 4.22 | 68.10 | 66 |
| 56 | 4419 | 54274 | 5.20 | 63.88 | 61 |
| 55 | 2665 | 49855 | 3.14 | 58.68 | 57 |
| 54 | 2801 | 47190 | 3.30 | 55.54 | 54 |
| 53 | 4564 | 44389 | 5.37 | 52.25 | 50 |
| 52 | 2652 | 39825 | 3.12 | 46.87 | 45 |
| 51 | 3552 | 37173 | 4.18 | 43.75 | 42 |
| 50 | 2730 | 33621 | 3.21 | 39.57 | 38 |
| 49 | 2669 | 30891 | 3.14 | 36.36 | 35 |
| 48 | 2748 | 28222 | 3.23 | 33.22 | 32 |
| 47 | 2634 | 25474 | 3.10 | 29.98 | 28 |
| 46 | 2709 | 22840 | 3.19 | 26.88 | 25 |
| 45 | 2639 | 20131 | 3.11 | 23.69 | 22 |
| 44 | 2574 | 17492 | 3.03 | 20.59 | 19 |
| 43 | 2471 | 14918 | 2.91 | 17.56 | 16 |
| 42 | 2297 | 12447 | 2.70 | 14.65 | 13 |
| 41 | 598 | 10150 | 0.70 | 11.95 | 12 |
| 40 | 1534 | 9552 | 1.81 | 11.24 | 10 |
| 39 | 1949 | 8018 | 2.29 | 9.44 | 8 |
| 38 | 1591 | 6069 | 1.87 | 7.14 | 6 |
| 37 | 1379 | 4478 | 1.62 | 5.27 | 4 |
| 36 | 1066 | 3099 | 1.25 | 3.65 | 3 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 4 SOCIAL STUDIES -- 1994
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 35 | 788 | 2033 | 0.93 | 2.39 | 2 |
| 34 | 516 | 1245 | 0.61 | 1.47 | 1 |
| 33 | 474 | 729 | 0.56 | 0.86 | 1 |
| 32 | 138 | 255 | 0.16 | 0.30 | 1 |
| LESS THAN 32 | 117 | 117 | 0.14 | 0.14 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SCIENCE -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 16,152 | High Score | 181 |
| | | Low Score | 131 |
| Mean | 152.8 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 9.1 | 90 | 165.1 |
| | | 75 | 159.4 |
| | | 50 (Median) | 152.5 |
| Variance | 82.1 | 25 | 145.8 |
| | | 10 | 141.1 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 181 | 2 | 16152 | 0.0 | 100.0 | 99 |
| 180 | 9 | 16150 | 0.1 | 100.0 | 99 |
| 179 | 4 | 16141 | 0.0 | 99.9 | 99 |
| 178 | 15 | 16137 | 0.1 | 99.9 | 99 |
| 177 | 11 | 16122 | 0.1 | 99.8 | 99 |
| 176 | 25 | 16111 | 0.2 | 99.8 | 99 |
| 175 | 14 | 16086 | 0.1 | 99.6 | 99 |
| 174 | 36 | 16072 | 0.2 | 99.5 | 99 |
| 173 | 62 | 16036 | 0.4 | 99.3 | 99 |
| 172 | 91 | 15974 | 0.6 | 98.9 | 99 |
| 171 | 91 | 15883 | 0.6 | 98.3 | 98 |
| 170 | 157 | 15792 | 1.0 | 97.8 | 97 |
| 169 | 173 | 15635 | 1.1 | 96.8 | 96 |
| 168 | 230 | 15462 | 1.4 | 95.7 | 95 |
| 167 | 251 | 15232 | 1.6 | 94.3 | 94 |
| 166 | 276 | 14981 | 1.7 | 92.8 | 92 |
| 165 | 437 | 14705 | 2.7 | 91.0 | 90 |
| 164 | 334 | 14268 | 2.1 | 88.3 | 87 |
| 163 | 417 | 13934 | 2.6 | 86.3 | 85 |
| 162 | 387 | 13517 | 2.4 | 83.7 | 82 |
| 161 | 423 | 13130 | 2.6 | 81.3 | 80 |
| 160 | 526 | 12707 | 3.3 | 78.7 | 77 |
| 159 | 549 | 12181 | 3.4 | 75.4 | 74 |
| 158 | 536 | 11632 | 3.3 | 72.0 | 70 |
| 157 | 583 | 11096 | 3.6 | 68.7 | 67 |
| 156 | 586 | 10513 | 3.6 | 65.1 | 63 |
| 155 | 594 | 9927 | 3.7 | 61.5 | 60 |
| 154 | 627 | 9333 | 3.9 | 57.8 | 56 |
| 153 | 623 | 8706 | 3.9 | 53.9 | 52 |
| 152 | 676 | 8083 | 4.2 | 50.0 | 48 |
| 151 | 691 | 7407 | 4.3 | 45.9 | 44 |
| 150 | 719 | 6716 | 4.5 | 41.6 | 39 |
| 149 | 475 | 5997 | 2.9 | 37.1 | 36 |
| 148 | 249 | 5522 | 1.5 | 34.2 | 33 |
| 147 | 730 | 5273 | 4.5 | 32.7 | 30 |
| 146 | 686 | 4543 | 4.3 | 28.1 | 26 |
| 145 | 478 | 3857 | 3.0 | 23.9 | 22 |
| 144 | 193 | 3379 | 1.2 | 20.9 | 20 |
| 143 | 684 | 3186 | 4.2 | 19.7 | 18 |
| 142 | 654 | 2502 | 4.1 | 15.5 | 13 |
| 141 | 524 | 1848 | 3.2 | 11.4 | 10 |
| 140 | 277 | 1324 | 1.7 | 8.2 | 7 |
| 139 | 371 | 1047 | 2.3 | 6.5 | 5 |
| 138 | 171 | 676 | 1.1 | 4.2 | 4 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SCIENCE -- 1996
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 137 | 178 | 505 | 1.1 | 3.1 | 3 |
| 136 | 161 | 327 | 1.0 | 2.0 | 2 |
| 135 | 105 | 166 | 0.7 | 1.0 | 1 |
| 134 | 38 | 61 | 0.2 | 0.4 | 1 |
| 133 | 14 | 23 | 0.1 | 0.1 | 1 |
| 132 | 7 | 9 | 0.0 | 0.1 | 1 |
| 131 | 2 | 2 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--|--------|---------------------------|----------------|
| Number of Students With Valid Scores | 85,268 | High Score | 83 |
| | | Low Score | 28 |
| Mean | 52.7 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 8.9 | 90 | 64.0 |
| | | 75 | 59.3 |
| | | 50 (Median) | 53.0 |
| Variance | 79.1 | 25 | 45.8 |
| | | 10 | 40.7 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 83 | 1 | 85268 | 0.0 | 100.0 | 99 |
| 82 | 1 | 85267 | 0.0 | 100.0 | 99 |
| 81 | 1 | 85266 | 0.0 | 100.0 | 99 |
| 80 | 5 | 85265 | 0.0 | 100.0 | 99 |
| 79 | 17 | 85260 | 0.0 | 100.0 | 99 |
| 78 | 18 | 85243 | 0.0 | 100.0 | 99 |
| 77 | 47 | 85225 | 0.1 | 100.0 | 99 |
| 76 | 50 | 85178 | 0.1 | 100.0 | 99 |
| 75 | 24 | 85128 | 0.0 | 99.8 | 99 |
| 74 | 148 | 85104 | 0.2 | 99.8 | 99 |
| 73 | 203 | 84956 | 0.2 | 99.6 | 99 |
| 72 | 302 | 84753 | 0.4 | 99.4 | 99 |
| 71 | 401 | 84451 | 0.5 | 99.0 | 99 |
| 70 | 542 | 84050 | 0.6 | 98.6 | 98 |
| 69 | 724 | 83508 | 0.9 | 97.9 | 98 |
| 68 | 868 | 82784 | 1.0 | 97.1 | 97 |
| 67 | 1460 | 81916 | 1.7 | 96.1 | 95 |
| 66 | 1356 | 80456 | 1.6 | 94.4 | 94 |
| 65 | 1523 | 79100 | 1.8 | 92.8 | 92 |
| 64 | 1745 | 77577 | 2.1 | 91.0 | 90 |
| 63 | 3885 | 75832 | 4.6 | 88.9 | 87 |
| 62 | 2255 | 71947 | 2.6 | 84.4 | 83 |
| 61 | 2353 | 69692 | 2.8 | 81.7 | 80 |
| 60 | 2597 | 67339 | 3.1 | 79.0 | 77 |
| 59 | 3579 | 64742 | 4.2 | 75.9 | 74 |
| 58 | 3663 | 61163 | 4.3 | 71.7 | 70 |
| 57 | 2931 | 57500 | 3.4 | 67.4 | 66 |
| 56 | 3057 | 54569 | 3.6 | 64.0 | 62 |
| 55 | 3045 | 51512 | 3.6 | 60.4 | 59 |
| 54 | 3023 | 48467 | 3.6 | 56.8 | 55 |
| 53 | 5251 | 45444 | 6.2 | 53.3 | 50 |
| 52 | 3148 | 40193 | 3.7 | 47.1 | 45 |
| 51 | 3146 | 37045 | 3.7 | 43.5 | 42 |
| 50 | 3165 | 33899 | 3.7 | 39.8 | 38 |
| 49 | 3157 | 30734 | 3.7 | 36.0 | 34 |
| 48 | 3066 | 27577 | 3.6 | 32.3 | 31 |
| 47 | 1067 | 24511 | 1.3 | 28.8 | 28 |
| 46 | 3027 | 23444 | 3.6 | 27.5 | 26 |
| 45 | 2890 | 20417 | 3.4 | 23.9 | 22 |
| 44 | 2872 | 17527 | 3.4 | 20.6 | 19 |
| 43 | 1802 | 14655 | 2.1 | 17.2 | 16 |
| 42 | 2418 | 12853 | 2.8 | 15.1 | 14 |
| 41 | 2309 | 10435 | 2.7 | 12.2 | 11 |
| 40 | 1270 | 8126 | 1.5 | 9.5 | 9 |
| 39 | 1270 | 6856 | 1.5 | 8.0 | 7 |
| 38 | 1632 | 5586 | 1.9 | 6.6 | 6 |
| 37 | 1292 | 3954 | 1.5 | 4.6 | 4 |
| 36 | 966 | 2662 | 1.1 | 3.1 | 3 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 5 SOCIAL STUDIES -- 1994
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 35 | 771 | 1696 | 0.9 | 2.0 | 2 |
| 34 | 539 | 925 | 0.6 | 1.1 | 1 |
| 33 | 191 | 386 | 0.2 | 0.5 | 1 |
| 32 | 115 | 195 | 0.1 | 0.2 | 1 |
| LESS THAN 32 | 80 | 80 | 0.1 | 0.1 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SCIENCE -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 17,138 | High Score | 183 |
| | | Low Score | 130 |
| Mean | 154.3 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 9.0 | 90 | 166.4 |
| | | 75 | 161.1 |
| | | 50 (Median) | 154.0 |
| Variance | 80.2 | 25 | 147.3 |
| | | 10 | 142.2 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 183 | 2 | 17138 | 0.0 | 100.0 | 99 |
| 182 | 6 | 17136 | 0.0 | 100.0 | 99 |
| 180 | 7 | 17130 | 0.0 | 100.0 | 99 |
| 179 | 9 | 17123 | 0.1 | 99.9 | 99 |
| 178 | 14 | 17114 | 0.1 | 99.9 | 99 |
| 177 | 18 | 17100 | 0.1 | 99.8 | 99 |
| 176 | 31 | 17082 | 0.2 | 99.7 | 99 |
| 175 | 48 | 17051 | 0.3 | 99.5 | 99 |
| 174 | 72 | 17003 | 0.4 | 99.2 | 99 |
| 173 | 65 | 16931 | 0.4 | 98.8 | 99 |
| 172 | 145 | 16866 | 0.9 | 98.4 | 98 |
| 171 | 158 | 16721 | 0.9 | 97.6 | 97 |
| 170 | 219 | 16563 | 1.3 | 96.6 | 96 |
| 169 | 238 | 16344 | 1.4 | 95.4 | 95 |
| 168 | 312 | 16106 | 1.8 | 94.0 | 93 |
| 167 | 336 | 15794 | 2.0 | 92.2 | 91 |
| 166 | 384 | 15458 | 2.2 | 90.2 | 89 |
| 165 | 420 | 15074 | 2.5 | 88.0 | 87 |
| 164 | 492 | 14654 | 2.9 | 85.5 | 84 |
| 163 | 488 | 14162 | 2.9 | 82.6 | 81 |
| 162 | 549 | 13674 | 3.2 | 79.8 | 78 |
| 161 | 611 | 13125 | 3.6 | 76.6 | 75 |
| 160 | 416 | 12514 | 2.4 | 73.0 | 72 |
| 159 | 633 | 12098 | 3.7 | 70.6 | 69 |
| 158 | 437 | 11465 | 2.6 | 66.9 | 66 |
| 157 | 674 | 11028 | 3.9 | 64.4 | 62 |
| 156 | 699 | 10354 | 4.1 | 60.4 | 58 |
| 155 | 706 | 9655 | 4.1 | 56.3 | 54 |
| 154 | 712 | 8949 | 4.2 | 52.2 | 50 |
| 153 | 761 | 8237 | 4.4 | 48.1 | 46 |
| 152 | 769 | 7476 | 4.5 | 43.6 | 41 |
| 151 | 779 | 6707 | 4.6 | 39.1 | 37 |
| 150 | 222 | 5928 | 1.3 | 34.6 | 34 |
| 149 | 500 | 5706 | 2.9 | 33.3 | 32 |
| 148 | 739 | 5206 | 4.3 | 30.4 | 28 |
| 147 | 753 | 4467 | 4.4 | 26.1 | 24 |
| 146 | 665 | 3714 | 3.9 | 21.7 | 20 |
| 145 | 196 | 3049 | 1.1 | 17.8 | 17 |
| 144 | 630 | 2853 | 3.7 | 16.7 | 15 |
| 143 | 374 | 2223 | 2.2 | 13.0 | 12 |
| 142 | 525 | 1849 | 3.1 | 10.8 | 9 |
| 141 | 394 | 1324 | 2.3 | 7.7 | 7 |
| 140 | 319 | 930 | 1.9 | 5.4 | 4 |
| 139 | 238 | 611 | 1.4 | 3.6 | 3 |
| 138 | 153 | 373 | 0.9 | 2.2 | 2 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SCIENCE -- 1996
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 137 | 93 | 220 | 0.5 | 1.3 | 1 |
| 136 | 81 | 127 | 0.5 | 0.7 | 1 |
| 135 | 39 | 46 | 0.2 | 0.3 | 1 |
| 134 | 2 | 7 | 0.0 | 0.0 | 1 |
| 133 | 2 | 5 | 0.0 | 0.0 | 1 |
| 131 | 2 | 3 | 0.0 | 0.0 | 1 |
| 130 | 1 | 1 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 85,628 | High Score | 84 |
| | | Low Score | 30 |
| Mean | 52.0 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 8.8 | 90 | 63.7 |
| | | 75 | 58.3 |
| Variance | 78.2 | 50 (Median) | 51.8 |
| | | 25 | 44.8 |
| | | 10 | 39.9 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 84 | 1 | 85628 | 0.0 | 100.0 | 99 |
| 82 | 4 | 85627 | 0.0 | 100.0 | 99 |
| 81 | 7 | 85623 | 0.0 | 100.0 | 99 |
| 80 | 6 | 85616 | 0.0 | 100.0 | 99 |
| 79 | 11 | 85610 | 0.0 | 100.0 | 99 |
| 78 | 28 | 85599 | 0.0 | 100.0 | 99 |
| 77 | 43 | 85571 | 0.1 | 99.9 | 99 |
| 76 | 69 | 85528 | 0.1 | 99.9 | 99 |
| 75 | 122 | 85459 | 0.1 | 99.8 | 99 |
| 74 | 171 | 85337 | 0.2 | 99.7 | 99 |
| 73 | 259 | 85166 | 0.3 | 99.5 | 99 |
| 72 | 306 | 84907 | 0.4 | 99.2 | 99 |
| 71 | 382 | 84601 | 0.5 | 98.8 | 99 |
| 70 | 493 | 84219 | 0.6 | 98.4 | 98 |
| 69 | 563 | 83726 | 0.7 | 97.8 | 97 |
| 68 | 893 | 83163 | 1.0 | 97.1 | 97 |
| 67 | 1426 | 82270 | 1.7 | 96.1 | 95 |
| 66 | 985 | 80844 | 1.2 | 94.4 | 94 |
| 65 | 1478 | 79859 | 1.7 | 93.3 | 92 |
| 64 | 1737 | 78381 | 2.0 | 91.5 | 91 |
| 63 | 2419 | 76644 | 2.8 | 89.5 | 88 |
| 62 | 1608 | 74225 | 1.9 | 86.7 | 86 |
| 61 | 2956 | 72617 | 3.5 | 84.8 | 83 |
| 60 | 2777 | 69661 | 3.2 | 81.4 | 80 |
| 59 | 2178 | 66884 | 2.5 | 78.1 | 77 |
| 58 | 3123 | 64706 | 3.7 | 75.6 | 74 |
| 57 | 3438 | 61583 | 4.0 | 71.9 | 70 |
| 56 | 3825 | 58145 | 4.5 | 67.9 | 66 |
| 55 | 2860 | 54320 | 3.3 | 63.4 | 62 |
| 54 | 3046 | 51460 | 3.6 | 60.1 | 58 |
| 53 | 3148 | 48414 | 3.7 | 56.5 | 55 |
| 52 | 3281 | 45266 | 3.8 | 52.9 | 51 |
| 51 | 3442 | 41985 | 4.0 | 49.0 | 47 |
| 50 | 3627 | 38543 | 4.2 | 45.0 | 43 |
| 49 | 3607 | 34916 | 4.2 | 40.8 | 39 |
| 48 | 1244 | 31309 | 1.5 | 36.6 | 36 |
| 47 | 2408 | 30065 | 2.8 | 35.1 | 34 |
| 46 | 3783 | 27657 | 4.4 | 32.3 | 30 |
| 45 | 3649 | 23874 | 4.3 | 27.9 | 26 |
| 44 | 3613 | 20225 | 4.2 | 23.6 | 22 |
| 43 | 3390 | 16612 | 4.0 | 19.4 | 17 |
| 42 | 2110 | 13222 | 2.5 | 15.4 | 14 |
| 41 | 877 | 11112 | 1.0 | 13.0 | 12 |
| 40 | 2697 | 10235 | 3.2 | 12.0 | 10 |
| 39 | 2843 | 7538 | 3.3 | 8.8 | 7 |
| 38 | 2157 | 4695 | 2.5 | 5.5 | 4 |
| 37 | 1026 | 2538 | 1.2 | 3.0 | 2 |
| 36 | 831 | 1512 | 1.0 | 1.8 | 1 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 6 SOCIAL STUDIES -- 1994
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 35 | 324 | 681 | 0.4 | 0.8 | 1 |
| 34 | 251 | 357 | 0.3 | 0.4 | 1 |
| 33 | 81 | 106 | 0.1 | 0.1 | 1 |
| 32 | 11 | 25 | 0.0 | 0.0 | 1 |
| LESS THAN 32 | 14 | 14 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SCIENCE -- 1996

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 17,604 | High Score | 188 |
| Mean | 157.2 | Low Score | 135 |
| Standard Deviation | 8.8 | 1996 State Percentiles | Scale Score |
| Variance | 77.0 | 90 | 168.8 |
| | | 75 | 163.7 |
| | | 50 (Median) | 156.9 |
| | | 25 | 150.3 |
| | | 10 | 145.7 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 188 | 1 | 17604 | 0.0 | 100.0 | 99 |
| 186 | 3 | 17603 | 0.0 | 100.0 | 99 |
| 185 | 2 | 17600 | 0.0 | 100.0 | 99 |
| 184 | 2 | 17598 | 0.0 | 100.0 | 99 |
| 183 | 10 | 17596 | 0.1 | 100.0 | 99 |
| 182 | 6 | 17586 | 0.0 | 99.9 | 99 |
| 181 | 23 | 17580 | 0.1 | 99.9 | 99 |
| 180 | 12 | 17557 | 0.1 | 99.7 | 99 |
| 179 | 16 | 17545 | 0.1 | 99.7 | 99 |
| 178 | 48 | 17529 | 0.3 | 99.6 | 99 |
| 177 | 80 | 17481 | 0.5 | 99.3 | 99 |
| 176 | 83 | 17401 | 0.5 | 98.9 | 99 |
| 175 | 102 | 17318 | 0.6 | 98.4 | 98 |
| 174 | 159 | 17216 | 0.9 | 97.8 | 97 |
| 173 | 193 | 17057 | 1.1 | 96.9 | 96 |
| 172 | 194 | 16864 | 1.1 | 95.8 | 95 |
| 171 | 271 | 16670 | 1.5 | 94.7 | 94 |
| 170 | 300 | 16399 | 1.7 | 93.2 | 92 |
| 169 | 371 | 16099 | 2.1 | 91.5 | 90 |
| 168 | 514 | 15728 | 2.9 | 89.3 | 88 |
| 167 | 447 | 15214 | 2.5 | 86.4 | 85 |
| 166 | 461 | 14767 | 2.6 | 83.9 | 83 |
| 165 | 685 | 14306 | 3.9 | 81.3 | 79 |
| 164 | 555 | 13621 | 3.2 | 77.4 | 76 |
| 163 | 799 | 13066 | 4.5 | 74.2 | 72 |
| 162 | 591 | 12267 | 3.4 | 69.7 | 68 |
| 161 | 644 | 11676 | 3.7 | 66.3 | 64 |
| 160 | 845 | 11032 | 4.8 | 62.7 | 60 |
| 159 | 656 | 10187 | 3.7 | 57.9 | 56 |
| 158 | 466 | 9531 | 2.7 | 54.1 | 53 |
| 157 | 427 | 9065 | 2.4 | 51.5 | 50 |
| 156 | 675 | 8638 | 3.8 | 49.1 | 47 |
| 155 | 734 | 7963 | 4.2 | 45.2 | 43 |
| 154 | 759 | 7229 | 4.3 | 41.1 | 39 |
| 153 | 741 | 6470 | 4.2 | 36.8 | 35 |
| 152 | 747 | 5729 | 4.2 | 32.5 | 30 |
| 151 | 485 | 4982 | 2.8 | 28.3 | 27 |
| 150 | 497 | 4497 | 2.8 | 25.6 | 24 |
| 149 | 695 | 4000 | 4.0 | 22.7 | 21 |
| 148 | 441 | 3305 | 2.5 | 18.8 | 18 |
| 147 | 658 | 2864 | 3.7 | 16.3 | 14 |
| 146 | 534 | 2206 | 3.0 | 12.5 | 11 |
| 145 | 525 | 1672 | 3.0 | 9.5 | 8 |
| 144 | 289 | 1147 | 1.6 | 6.5 | 6 |
| 143 | 317 | 858 | 1.8 | 4.9 | 4 |
| 142 | 206 | 541 | 1.2 | 3.1 | |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SCIENCE -- 1996
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 141 | 185 | 335 | 1.1 | 1.9 | 1 |
| 140 | 94 | 150 | 0.5 | 0.9 | 1 |
| 139 | 36 | 56 | 0.2 | 0.3 | 1 |
| 138 | 9 | 20 | 0.1 | 0.1 | 1 |
| 137 | 8 | 11 | 0.1 | 0.1 | 1 |
| 136 | 2 | 3 | 0.0 | 0.0 | 1 |
| 135 | 1 | 1 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 7 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 84,563 | High Score | 82 |
| | | Low Score | 27 |
| Mean | 52.0 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 8.8 | 90 | 63.6 |
| | | 75 | 58.7 |
| Variance | 77.8 | 50 (Median) | 52.1 |
| | | 25 | 45.2 |
| | | 10 | 40.1 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 82 | 2 | 84563 | 0.0 | 100.0 | 99 |
| 81 | 3 | 84561 | 0.0 | 100.0 | 99 |
| 80 | 8 | 84558 | 0.0 | 100.0 | 99 |
| 79 | 14 | 84550 | 0.0 | 100.0 | 99 |
| 77 | 31 | 84536 | 0.0 | 100.0 | 99 |
| 76 | 76 | 84505 | 0.1 | 99.9 | 99 |
| 75 | 77 | 84429 | 0.1 | 99.8 | 99 |
| 74 | 166 | 84352 | 0.2 | 99.6 | 99 |
| 73 | 150 | 84186 | 0.2 | 99.6 | 99 |
| 72 | 133 | 84036 | 0.2 | 99.4 | 99 |
| 71 | 350 | 83903 | 0.4 | 99.2 | 99 |
| 70 | 687 | 83553 | 0.8 | 98.8 | 98 |
| 69 | 617 | 82866 | 0.7 | 98.0 | 98 |
| 68 | 789 | 82249 | 0.9 | 97.3 | 97 |
| 67 | 872 | 81460 | 1.0 | 96.3 | 96 |
| 66 | 1371 | 80588 | 1.6 | 95.3 | 94 |
| 65 | 1271 | 79217 | 1.5 | 93.7 | 93 |
| 64 | 2076 | 77946 | 2.5 | 92.2 | 91 |
| 63 | 2128 | 75870 | 2.5 | 89.7 | 88 |
| 62 | 1850 | 73742 | 2.2 | 87.2 | 86 |
| 61 | 2714 | 71892 | 3.2 | 85.0 | 83 |
| 60 | 3840 | 69178 | 4.5 | 81.8 | 80 |
| 59 | 2436 | 65338 | 2.9 | 77.3 | 76 |
| 58 | 2606 | 62902 | 3.1 | 74.4 | 73 |
| 57 | 2778 | 60296 | 3.3 | 71.3 | 70 |
| 56 | 3718 | 57518 | 4.4 | 68.0 | 66 |
| 55 | 3947 | 53800 | 4.7 | 63.6 | 61 |
| 54 | 3085 | 49853 | 3.7 | 59.0 | 57 |
| 53 | 3206 | 46768 | 3.8 | 55.3 | 53 |
| 52 | 3375 | 43562 | 4.0 | 51.5 | 50 |
| 51 | 3318 | 40187 | 3.9 | 47.5 | 46 |
| 50 | 3498 | 36869 | 4.1 | 43.6 | 42 |
| 49 | 3453 | 33371 | 4.1 | 39.5 | 37 |
| 48 | 2170 | 29918 | 2.6 | 35.4 | 34 |
| 47 | 3397 | 27748 | 4.0 | 32.8 | 31 |
| 46 | 2359 | 24351 | 2.8 | 28.8 | 27 |
| 45 | 3305 | 21992 | 3.9 | 26.0 | 24 |
| 44 | 2041 | 18687 | 2.4 | 22.1 | 21 |
| 43 | 2945 | 16646 | 3.5 | 19.7 | 18 |
| 42 | 1829 | 13701 | 2.2 | 16.2 | 15 |
| 41 | 2594 | 11872 | 3.1 | 14.0 | 13 |
| 40 | 2307 | 9278 | 2.7 | 11.0 | 10 |
| 39 | 1418 | 6971 | 1.7 | 8.2 | 7 |
| 38 | 1678 | 5553 | 2.0 | 6.6 | 6 |
| 37 | 1298 | 3875 | 1.5 | 4.6 | 4 |
| 36 | 941 | 2577 | 1.1 | 3.1 | 2 |
| 35 | 778 | 1636 | 0.9 | 1.9 | 1 |
| 34 | 483 | 858 | 0.6 | 1.0 | 1 |
| 33 | 187 | 375 | 0.2 | 0.4 | 1 |
| 32 | 139 | 188 | 0.2 | 0.2 | 1 |
| LESS THAN 32 | 49 | 49 | 0.1 | 0.1 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SCIENCE -- 1996

STATE SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 17,330 | High Score | 187 |
| | | Low Score | 137 |
| Mean | 158.4 | 1996 State Percentiles | Scale Score |
| Standard Deviation | 9.0 | 90 | 170.4 |
| | | 75 | 165.4 |
| | | 50 (Median) | 158.1 |
| Variance | 81.4 | 25 | 151.6 |
| | | 10 | 146.3 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 187 | 3 | 17330 | 0.0 | 100.0 | 99 |
| 186 | 1 | 17327 | 0.0 | 100.0 | 99 |
| 184 | 6 | 17326 | 0.0 | 100.0 | 99 |
| 183 | 7 | 17320 | 0.0 | 99.9 | 99 |
| 182 | 14 | 17313 | 0.1 | 99.9 | 99 |
| 181 | 26 | 17299 | 0.2 | 99.8 | 99 |
| 180 | 29 | 17273 | 0.2 | 99.7 | 99 |
| 179 | 63 | 17244 | 0.4 | 99.5 | 99 |
| 178 | 62 | 17181 | 0.4 | 99.1 | 99 |
| 177 | 76 | 17119 | 0.4 | 98.8 | 99 |
| 176 | 135 | 17043 | 0.8 | 98.3 | 98 |
| 175 | 158 | 16908 | 0.9 | 97.6 | 97 |
| 174 | 191 | 16750 | 1.1 | 96.7 | 96 |
| 173 | 306 | 16559 | 1.8 | 95.6 | 95 |
| 172 | 280 | 16253 | 1.6 | 93.8 | 93 |
| 171 | 330 | 15973 | 1.9 | 92.2 | 91 |
| 170 | 362 | 15643 | 2.1 | 90.3 | 89 |
| 169 | 391 | 15281 | 2.3 | 88.2 | 87 |
| 168 | 598 | 14890 | 3.5 | 85.9 | 84 |
| 167 | 788 | 14292 | 4.6 | 82.5 | 80 |
| 166 | 469 | 13504 | 2.7 | 77.9 | 77 |
| 165 | 523 | 13035 | 3.0 | 75.2 | 74 |
| 164 | 544 | 12512 | 3.1 | 72.2 | 71 |
| 163 | 547 | 11968 | 3.2 | 69.1 | 67 |
| 162 | 784 | 11421 | 4.5 | 65.9 | 64 |
| 161 | 547 | 10637 | 3.2 | 61.4 | 60 |
| 160 | 599 | 10090 | 3.5 | 58.2 | 56 |
| 159 | 583 | 9491 | 3.4 | 54.8 | 53 |
| 158 | 611 | 8908 | 3.5 | 51.4 | 50 |
| 157 | 661 | 8297 | 3.8 | 47.9 | 46 |
| 156 | 699 | 7636 | 4.0 | 44.1 | 42 |
| 155 | 669 | 6937 | 3.9 | 40.0 | 38 |
| 154 | 655 | 6268 | 3.8 | 36.2 | 34 |
| 153 | 681 | 5613 | 3.9 | 32.4 | 30 |
| 152 | 663 | 4932 | 3.8 | 28.5 | 27 |
| 151 | 420 | 4269 | 2.4 | 24.6 | 23 |
| 150 | 432 | 3849 | 2.5 | 22.2 | 21 |
| 149 | 459 | 3417 | 2.7 | 19.7 | 18 |
| 148 | 570 | 2958 | 3.3 | 17.1 | 15 |
| 147 | 545 | 2388 | 3.1 | 13.8 | 12 |
| 146 | 462 | 1843 | 2.7 | 10.6 | 9 |
| 145 | 432 | 1381 | 2.5 | 8.0 | 7 |
| 144 | 316 | 949 | 1.8 | 5.5 | 5 |
| 143 | 297 | 633 | 1.7 | 3.7 | 3 |
| 142 | 134 | 336 | 0.8 | 1.9 | 2 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SOCIAL STUDIES -- 1994

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students With Valid Scores | 82,674 | High Score | 84 |
| | | Low Score | 30 |
| Mean | 51.9 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 8.5 | 90 | 63.3 |
| | | 75 | 58.0 |
| Variance | 72.5 | 50 (Median) | 51.8 |
| | | 25 | 45.0 |
| | | 10 | 40.5 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 84 | 1 | 82674 | 0.0 | 100.0 | 99 |
| 83 | 4 | 82673 | 0.0 | 100.0 | 99 |
| 82 | 5 | 82669 | 0.0 | 100.0 | 99 |
| 81 | 3 | 82664 | 0.0 | 100.0 | 99 |
| 80 | 10 | 82661 | 0.0 | 100.0 | 99 |
| 79 | 17 | 82651 | 0.0 | 100.0 | 99 |
| 78 | 8 | 82634 | 0.0 | 100.0 | 99 |
| 77 | 43 | 82626 | 0.1 | 99.9 | 99 |
| 76 | 45 | 82583 | 0.1 | 99.9 | 99 |
| 75 | 96 | 82538 | 0.1 | 99.8 | 99 |
| 74 | 65 | 82442 | 0.1 | 99.7 | 99 |
| 73 | 127 | 82377 | 0.2 | 99.6 | 99 |
| 72 | 196 | 82250 | 0.2 | 99.5 | 99 |
| 71 | 282 | 82054 | 0.3 | 99.3 | 99 |
| 70 | 546 | 81772 | 0.7 | 98.9 | 99 |
| 69 | 526 | 81226 | 0.6 | 98.3 | 98 |
| 68 | 664 | 80700 | 0.8 | 97.6 | 97 |
| 67 | 774 | 80036 | 0.9 | 96.8 | 96 |
| 66 | 921 | 79262 | 1.1 | 95.9 | 95 |
| 65 | 1822 | 78341 | 2.2 | 94.8 | 94 |
| 64 | 1828 | 76519 | 2.2 | 92.6 | 91 |
| 63 | 1542 | 74691 | 1.9 | 90.3 | 89 |
| 62 | 1706 | 73149 | 2.1 | 88.5 | 87 |
| 61 | 3242 | 71443 | 3.9 | 86.4 | 84 |
| 60 | 2768 | 68201 | 3.4 | 82.5 | 81 |
| 59 | 2245 | 65433 | 2.7 | 79.2 | 78 |
| 58 | 2426 | 63188 | 2.9 | 76.4 | 75 |
| 57 | 4430 | 60762 | 5.4 | 73.5 | 71 |
| 56 | 3684 | 56332 | 4.5 | 68.1 | 66 |
| 55 | 2974 | 52648 | 3.6 | 63.7 | 62 |
| 54 | 3000 | 49674 | 3.6 | 60.1 | 58 |
| 53 | 3161 | 46674 | 3.8 | 56.5 | 55 |
| 52 | 3279 | 43513 | 4.0 | 52.6 | 51 |
| 51 | 3372 | 40234 | 4.1 | 48.7 | 47 |
| 50 | 3558 | 36862 | 4.3 | 44.6 | 42 |
| 49 | 3705 | 33304 | 4.5 | 40.3 | 38 |
| 48 | 2274 | 29599 | 2.8 | 35.8 | 34 |
| 47 | 2364 | 27325 | 2.9 | 33.1 | 32 |
| 46 | 2605 | 24961 | 3.2 | 30.2 | 29 |
| 45 | 3605 | 22356 | 4.4 | 27.0 | 25 |
| 44 | 3449 | 18751 | 4.2 | 22.7 | 21 |
| 43 | 3251 | 15302 | 3.9 | 18.5 | 17 |
| 42 | 1841 | 12051 | 2.2 | 14.6 | 13 |
| 41 | 1845 | 10210 | 2.2 | 12.4 | 11 |
| 40 | 2315 | 8365 | 2.8 | 10.1 | 9 |
| 39 | 1802 | 6050 | 2.2 | 7.3 | 6 |
| 38 | 1497 | 4248 | 1.8 | 5.1 | 4 |
| 37 | 1041 | 2751 | 1.3 | 3.3 | 3 |
| 36 | 1044 | 1710 | 1.3 | 2.1 | 1 |
| 35 | 382 | 666 | 0.5 | 0.8 | 1 |
| 34 | 142 | 284 | 0.2 | 0.3 | 1 |
| LESS THAN 34 | 142 | 142 | 0.2 | 0.2 | 1 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
END-OF-GRADE TEST -- GRADE 8 SCIENCE -- 1996
(Continued)

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1996 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 141 | 118 | 202 | 0.7 | 1.2 | 1 |
| 140 | 50 | 84 | 0.3 | 0.5 | 1 |
| 139 | 26 | 34 | 0.2 | 0.2 | 1 |
| 138 | 7 | 8 | 0.0 | 0.1 | 1 |
| 137 | 1 | 1 | 0.0 | 0.0 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
FRENCH (FORM A) -- 1992

STATE SUMMARY STATISTICS

| | | | |
|--|------|---------------------------|---------------|
| Number of Students With Valid Scores | 863 | High Score | 39 |
| | | Low Score | 4 |
| Mean | 21.6 | 1992 State Percentiles | Core Score |
| Standard Deviation | 5.8 | 90 | 29 |
| | | 75 | 26 |
| | | 50 (Median) | 22 |
| Variance | 33.7 | 25 | 18 |
| | | 10 | 14 |

FREQUENCY DISTRIBUTION

| Core Score | Frequency | Cumulative Frequency | Percent | 1992 State Percentile |
|---------------|-----------|-------------------------|---------|--------------------------|
| 40 | 0 | 859 | 0.0 | 99 |
| 39 | 1 | 859 | 0.1 | 99 |
| 38 | 0 | 858 | 0.0 | 99 |
| 37 | 5 | 858 | 0.6 | 99 |
| 36 | 3 | 853 | 0.3 | 99 |
| 35 | 3 | 850 | 0.3 | 98 |
| 34 | 5 | 847 | 0.6 | 98 |
| 33 | 13 | 842 | 1.5 | 98 |
| 32 | 11 | 829 | 1.3 | 96 |
| 31 | 15 | 818 | 1.7 | 95 |
| 30 | 20 | 803 | 2.3 | 93 |
| 29 | 19 | 783 | 2.2 | 91 |
| 28 | 30 | 764 | 3.5 | 89 |
| 27 | 43 | 734 | 5.0 | 85 |
| 26 | 51 | 691 | 5.9 | 80 |
| 25 | 44 | 640 | 5.1 | 74 |
| 24 | 51 | 596 | 5.9 | 69 |
| 23 | 64 | 545 | 7.5 | 63 |
| 22 | 58 | 481 | 6.8 | 56 |
| 21 | 63 | 423 | 7.3 | 49 |
| 20 | 54 | 360 | 6.3 | 42 |
| 19 | 56 | 306 | 6.5 | 35 |
| 18 | 47 | 250 | 5.5 | 29 |
| 17 | 34 | 203 | 4.0 | 24 |
| 16 | 45 | 169 | 5.2 | 20 |
| 15 | 35 | 124 | 4.1 | 14 |
| 14 | 21 | 89 | 2.4 | 10 |
| 13 | 27 | 68 | 3.1 | 8 |
| 12 | 18 | 41 | 2.1 | 5 |
| 11 | 15 | 23 | 1.7 | 3 |
| 10 | 2 | 8 | 0.2 | 1 |
| 9 | 5 | 6 | 0.6 | 1 |
| 8 | 0 | 1 | 0.0 | 1 |
| Less than 7 | 1 | 1 | 0.1 | 1 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
FRENCH (FORM B) -- 1992

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|------|------------------------|------------|
| Number of Students With Valid Scores | 840 | High Score | 39 |
| Mean | 20.9 | Low Score | 5 |
| Standard Deviation | 5.1 | 1992 State Percentiles | Core Score |
| Variance | 26.2 | 90 | 27 |
| | | 75 | 25 |
| | | 50 (Median) | 21 |
| | | 25 | 18 |
| | | 10 | 14 |

FREQUENCY DISTRIBUTION

| Core Score | Frequency | Cumulative Frequency | Percent | 1992 State Percentile |
|-------------|-----------|----------------------|---------|-----------------------|
| 40 | 0 | 840 | 0.0 | 99 |
| 39 | 1 | 840 | 0.1 | 99 |
| 38 | 1 | 839 | 0.1 | 99 |
| 37 | 1 | 838 | 0.1 | 99 |
| 36 | 0 | 837 | 0.0 | 99 |
| 35 | 2 | 837 | 0.2 | 99 |
| 34 | 1 | 835 | 0.1 | 99 |
| 33 | 4 | 834 | 0.5 | 99 |
| 32 | 8 | 830 | 1.0 | 99 |
| 31 | 8 | 822 | 1.0 | 98 |
| 30 | 11 | 814 | 1.3 | 97 |
| 29 | 16 | 803 | 1.9 | 96 |
| 28 | 30 | 787 | 3.6 | 94 |
| 27 | 32 | 757 | 3.8 | 90 |
| 26 | 37 | 725 | 4.4 | 86 |
| 25 | 46 | 688 | 5.5 | 82 |
| 24 | 52 | 642 | 6.2 | 76 |
| 23 | 59 | 590 | 7.0 | 70 |
| 22 | 76 | 531 | 9.0 | 63 |
| 21 | 56 | 455 | 6.7 | 54 |
| 20 | 73 | 399 | 8.7 | 48 |
| 19 | 71 | 326 | 8.5 | 39 |
| 18 | 53 | 255 | 6.3 | 30 |
| 17 | 52 | 202 | 6.2 | 24 |
| 16 | 31 | 150 | 3.7 | 18 |
| 15 | 30 | 119 | 3.6 | 14 |
| 14 | 29 | 89 | 3.5 | 11 |
| 13 | 18 | 60 | 2.1 | 7 |
| 12 | 14 | 42 | 1.7 | 5 |
| 11 | 13 | 28 | 1.5 | 3 |
| 10 | 9 | 15 | 1.1 | 2 |
| 9 | 0 | 6 | 0.0 | 1 |
| 8 | 2 | 6 | 0.2 | 1 |
| Less than 7 | 4 | 4 | 0.5 | 1 |

LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
SPANISH (FORM A) -- 1992

STATE SUMMARY STATISTICS

| | | | |
|--------------------------------------|-------|------------------------|------------|
| Number of Students With Valid Scores | 1,260 | High Score | 40 |
| Mean | 20.8 | Low Score | 1 |
| Standard Deviation | 5.7 | 1992 State Percentiles | Core Score |
| Variance | 32.6 | 90 | 28 |
| | | 75 | 24 |
| | | 50 (Median) | 21 |
| | | 25 | 17 |
| | | 10 | 14 |

FREQUENCY DISTRIBUTION

| Core Score | Frequency | Cumulative Frequency | Percent | 1992 State Percentile |
|-------------|-----------|----------------------|---------|-----------------------|
| 40 | 2 | 1260 | 0.2 | 99 |
| 39 | 2 | 1258 | 0.2 | 99 |
| 38 | 1 | 1256 | 0.1 | 99 |
| 37 | 4 | 1255 | 0.3 | 99 |
| 36 | 7 | 1251 | 0.6 | 99 |
| 35 | 2 | 1244 | 0.2 | 99 |
| 34 | 4 | 1242 | 0.3 | 99 |
| 33 | 10 | 1238 | 0.8 | 98 |
| 32 | 11 | 1228 | .9 | 97 |
| 31 | 16 | 1217 | 1.3 | 97 |
| 30 | 21 | 1201 | 1.7 | 95 |
| 29 | 38 | 1180 | 3.0 | 94 |
| 28 | 43 | 1142 | 3.4 | 91 |
| 27 | 44 | 1099 | 3.5 | 87 |
| 26 | 49 | 1055 | 3.9 | 84 |
| 25 | 60 | 1006 | 4.8 | 80 |
| 24 | 84 | 946 | 6.7 | 75 |
| 23 | 69 | 862 | 5.5 | 68 |
| 22 | 93 | 793 | 7.4 | 63 |
| 21 | 84 | 700 | 6.7 | 56 |
| 20 | 93 | 616 | 7.4 | 49 |
| 19 | 77 | 523 | 6.1 | 42 |
| 18 | 73 | 446 | 5.8 | 35 |
| 17 | 70 | 373 | 5.6 | 30 |
| 16 | 66 | 303 | 5.2 | 24 |
| 15 | 62 | 237 | 4.9 | 19 |
| 14 | 55 | 175 | 4.4 | 14 |
| 13 | 46 | 120 | 3.7 | 10 |
| 12 | 30 | 74 | 2.4 | 6 |
| 11 | 18 | 44 | 1.4 | 3 |
| 10 | 10 | 26 | 0.8 | 2 |
| 9 | 6 | 16 | 0.5 | 1 |
| 8 | 4 | 10 | 0.3 | 1 |
| Less than 7 | 6 | 6 | 0.5 | 1 |

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LOCAL OPTION TESTING
NORTH CAROLINA TESTING PROGRAM
SPANISH (FORM B) -- 1992

STATE SUMMARY STATISTICS

| | | | |
|--|-------|---------------------------|---------------|
| Number of Students With Valid Scores | 1,152 | High Score | 39 |
| | | Low Score | 1 |
| Mean | 20.5 | 1992 State Percentiles | Core Score |
| Standard Deviation | 5.5 | 90 | 28 |
| | | 75 | 24 |
| | | 50 (Median) | 20 |
| Variance | 30.4 | 25 | 17 |
| | | 10 | 14 |

FREQUENCY DISTRIBUTION

| Core Score | Frequency | Cumulative Frequency | Percent | 1992 State Percentile |
|---------------|-----------|-------------------------|---------|--------------------------|
| 40 | 0 | 1152 | 0.0 | 99 |
| 39 | 3 | 1152 | 0.3 | 99 |
| 38 | 1 | 1149 | 0.1 | 99 |
| 37 | 3 | 1148 | 0.3 | 99 |
| 36 | 2 | 1145 | 0.2 | 99 |
| 35 | 6 | 1143 | 0.5 | 99 |
| 34 | 3 | 1137 | 0.3 | 99 |
| 33 | 9 | 1134 | 0.8 | 98 |
| 32 | 9 | 1125 | 0.8 | 98 |
| 31 | 13 | 1116 | 1.1 | 97 |
| 30 | 16 | 1103 | 1.4 | 96 |
| 29 | 27 | 1087 | 2.3 | 94 |
| 28 | 31 | 1060 | 2.7 | 92 |
| 27 | 33 | 1029 | 2.9 | 89 |
| 26 | 45 | 996 | 3.9 | 86 |
| 25 | 55 | 951 | 4.8 | 83 |
| 24 | 68 | 896 | 5.9 | 78 |
| 23 | 81 | 828 | 7.0 | 72 |
| 22 | 59 | 747 | 5.1 | 65 |
| 21 | 69 | 688 | 6.0 | 60 |
| 20 | 101 | 619 | 8.8 | 54 |
| 19 | 73 | 518 | 6.3 | 45 |
| 18 | 88 | 445 | 7.6 | 39 |
| 17 | 80 | 357 | 6.9 | 31 |
| 16 | 68 | 277 | 5.9 | 24 |
| 15 | 47 | 209 | 4.1 | 18 |
| 14 | 54 | 162 | 4.7 | 14 |
| 13 | 39 | 108 | 3.4 | 9 |
| 12 | 28 | 69 | 2.4 | 6 |
| 11 | 17 | 41 | 1.5 | 4 |
| 10 | 13 | 24 | 1.1 | 2 |
| 9 | 4 | 11 | 0.3 | 1 |
| 8 | 2 | 7 | 0.2 | 1 |
| Less than 7 | 5 | 5 | 0.4 | 0 |

State-Mandated End-of-Course Tests

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End-of-Course Tests

Historical Information. The North Carolina end-of-course tests were initiated in response to legislation passed by the North Carolina General Assembly — the North Carolina Elementary and Secondary Reform Act of 1984. This act called for the implementation of the Basic Education Program through the establishment of a core curriculum for all students for each content area and the development of tests to assess the implementation of each curriculum across the state. Based on this legislation, the North Carolina end-of-course tests were developed for two purposes:

- To provide accurate measurement of individual student skills and knowledge specified in the North Carolina *Standard Course of Study*, and
- To provide accurate measurement of the knowledge and skills attained by groups of students for school, school system, and state accountability.

End-of-course tests are designed as curriculum-based achievement tests to measure that students know and are able to do within the context of a specific subject-area content. When properly administered and interpreted, these test results provide an independent, uniform source of reliable and valid information, which enables

- Students to know the extent to which they have mastered expected knowledge and skills and how they compare to others;
- Parents to know if their children are acquiring the knowledge and skills needed to succeed in a highly competitive job market;

- Teachers to know if their students have mastered grade-level knowledge and skills in the curriculum and, if not, what weaknesses need to be addressed;
- Community leaders and lawmakers to know if students in North Carolina schools are improving their performance over; and
- Citizens to objectively assess their return on investment in the public schools.

The North Carolina end-of-course tests were developed by the North Carolina Department of Public Instruction with technical support from the L.L. Thurstone Psychometric Laboratory at The University of North Carolina at Chapel Hill and the North Carolina Technical Advisory Group. The tests were developed for use as achievement tests to measure the acquisition of specific subject-area content and skills.

Scores on the end-of-course tests are only one of many indicators of the achievement of students. The value of these tests lies primarily in the fact that the scores provide a common standard that is not influenced by local differences in achievement and expectations. The tests provide yardsticks, which can be used to compare the achievement of students, schools, school systems, and the state. The assessment yardstick can be used to measure gains (or losses) in performance across time to see if educational improvement efforts at the state and local level are working.

High School Subjects Tests (EOC) Scale Scores

- Raw scores are converted to scale scores on the end-of-course tests. Scale scores enable the different forms of the tests to be equated. Developmental scale scores are inappropriate for end-of-course tests because the content taught in each of the courses is discrete.
- Scale scores allow the different forms of the test to be equated, so that a scale score of 50 in Algebra I on Form A represents the same level of achievement as a scale score of 50 on Form B, even though the raw scores may be slightly different.
- The scale scores for all tests were designed to have a mean of 50 and a standard deviation of 10. The range of scale scores is approximately 20 to 90.
- Beginning with 1993-94, scores for Algebra I were reported as scale scores rather than raw scores. In 1994-95, Biology, English I, and U.S. History were reported as scale scores rather than raw scores. In 1995-96 Economic, Legal, and Political Systems (ELP) used scale scores rather than raw scores to report student performance. These scores are not comparable to scores from earlier years when raw scores were used.

Achievement Levels. Achievement levels allow the comparison of student and group performance to standards based on what is expected in each subject at each grade level. Achievement levels were determined by relating the judgments of thousands of North Carolina teachers concerning the performance of each of their students to each student's performance (Contrasting Groups Method) on the end-of-course tests. The four levels are:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills of the course to be successful at a more advanced level in the content area.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills of the course and are minimally prepared to be successful at a more advanced level in the content area.

Level III: Students performing at this level consistently demonstrate mastery of the course subject matter and skills and are well prepared for a more advanced level in the content area.

Level IV: Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient in the course subject matter and skills and are very well prepared for a more advanced level in the content area.

Each achievement level corresponds to a range of scale scores for each subject.

**Achievement Level Ranges for
North Carolina End-of-Course Tests**

| Test/Year Normed | Level I | Level II | Level III | Level IV |
|-------------------------|----------------|-----------------|------------------|-----------------|
| Algebra I/1994 | 23-44 | 45-54 | 55-56 | 66-87 |
| Algebra II/1997 | 23-45 | 46-57 | 58-68 | 69-92 |
| Biology/1995 | 25-46 | 47-54 | 55-64 | 65-89 |
| Chemistry/1997 | 23-47 | 48-55 | 56-64 | 65-90 |
| ELP/1997 | 21-42 | 43-51 | 52-60 | 61-90 |
| ELP*/1995 | 0-29 | 30-42 | 43-53 | 54-67 |
| English I/1995 | 22-42 | 43-51 | 52-60 | 61-86 |
| English II** | 0.0-1.5 | 2.0-2.5 | 3.0-3.5 | 4.0-6.0 |
| Geometry/1997 | 23-45 | 46-56 | 57-66 | 67-91 |
| Physics/1997 | 23-42 | 43-51 | 52-62 | 63-87 |
| Physical Science/1997 | 23-43 | 44-53 | 54-63 | 64-89 |
| US History/1997 | 27-47 | 48-56 | 57-64 | 65-90 |

* Achievement level ranges for ELP for 1995-96 and earlier are based on raw scores.

** English II benchmarks were set in the summer of 1997.

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ALGEBRA I -- 1994

STATE SCALE SCORE SUMMARY STATISTICS

| | | | |
|--|--------|---------------------------|----------------|
| Number of Students With Valid Scores | 69,142 | High Score | 87 |
| | | Low Score | 23 |
| Mean | 55.1 | 1994 State Percentiles | Scale Score |
| Standard Deviation | 9.1 | 90 | 66.7 |
| | | 75 | 61.3 |
| | | 50 (Median) | 55.3 |
| Variance | 83.1 | 25 | 48.6 |
| | | 10 | 42.8 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 87 | 2 | 69142 | 0.0 | 100.0 | 99 |
| 86 | 3 | 69140 | 0.0 | 100.0 | 99 |
| 85 | 5 | 69137 | 0.0 | 100.0 | 99 |
| 84 | 26 | 69132 | 0.0 | 100.0 | 99 |
| 83 | 29 | 69106 | 0.0 | 100.0 | 99 |
| 82 | 49 | 69077 | 0.1 | 99.9 | 99 |
| 81 | 48 | 69028 | 0.1 | 99.8 | 99 |
| 80 | 81 | 68980 | 0.1 | 99.8 | 99 |
| 79 | 81 | 68899 | 0.1 | 99.7 | 99 |
| 78 | 83 | 68818 | 0.1 | 99.5 | 99 |
| 77 | 170 | 68735 | 0.3 | 99.4 | 99 |
| 76 | 199 | 68565 | 0.3 | 99.2 | 99 |
| 75 | 271 | 68366 | 0.4 | 98.9 | 99 |
| 74 | 332 | 68095 | 0.5 | 98.5 | 98 |
| 73 | 389 | 67763 | 0.6 | 98.0 | 98 |
| 72 | 373 | 67374 | 0.5 | 97.4 | 97 |
| 71 | 1034 | 67001 | 1.5 | 96.9 | 96 |
| 70 | 631 | 65967 | 0.9 | 95.4 | 95 |
| 69 | 842 | 65336 | 1.2 | 94.5 | 94 |
| 68 | 1303 | 64494 | 1.9 | 93.3 | 92 |
| 67 | 1132 | 63191 | 1.6 | 91.4 | 91 |
| 66 | 1935 | 62059 | 2.8 | 89.8 | 88 |
| 65 | 1064 | 60124 | 1.5 | 87.0 | 86 |
| 64 | 2227 | 59060 | 3.2 | 85.4 | 84 |
| 63 | 2580 | 56833 | 3.7 | 82.2 | 80 |
| 62 | 1819 | 54253 | 2.6 | 78.5 | 77 |
| 61 | 2518 | 52434 | 3.6 | 75.8 | 74 |
| 60 | 3246 | 49916 | 4.7 | 72.2 | 70 |
| 59 | 2231 | 46670 | 3.2 | 67.5 | 66 |
| 58 | 2941 | 44439 | 4.3 | 64.3 | 62 |
| 57 | 3697 | 41498 | 5.4 | 60.0 | 57 |
| 56 | 2537 | 37801 | 3.7 | 54.7 | 53 |
| 55 | 3166 | 35264 | 4.6 | 51.0 | 49 |
| 54 | 3165 | 32098 | 4.6 | 46.4 | 44 |
| 53 | 2609 | 28933 | 3.8 | 41.9 | 40 |
| 52 | 1919 | 26324 | 2.8 | 35.3 | 33 |
| 50 | 1750 | 20697 | 2.5 | 29.9 | 29 |
| 49 | 1759 | 18947 | 2.5 | 27.4 | 26 |
| 48 | 2949 | 17188 | 4.3 | 24.9 | 23 |
| 47 | 2199 | 14239 | 3.2 | 20.6 | 19 |
| 46 | 1554 | 12040 | 2.3 | 17.4 | 16 |

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NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ALGEBRA I -- 1994
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1994 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 45 | 1424 | 10486 | 2.1 | 15.2 | 14 |
| 44 | 1306 | 9062 | 1.9 | 13.1 | 12 |
| 43 | 1199 | 7756 | 1.7 | 11.2 | 10 |
| 42 | 1138 | 6557 | 1.7 | 9.5 | 9 |
| 41 | 1041 | 5419 | 1.5 | 7.8 | 7 |
| 40 | 970 | 4378 | 1.4 | 6.3 | 6 |
| 39 | 814 | 3408 | 1.2 | 4.9 | 4 |
| 38 | 653 | 2594 | 0.9 | 3.8 | 3 |
| 37 | 556 | 1941 | 0.8 | 2.8 | 2 |
| 36 | 409 | 1385 | 0.6 | 2.0 | 2 |
| 35 | 384 | 976 | 0.6 | 1.4 | 1 |
| 34 | 262 | 592 | 0.4 | 0.9 | 1 |
| 33 | 119 | 330 | 0.2 | 0.5 | 1 |
| 32 | 109 | 211 | 0.2 | 0.3 | 1 |
| LESS THAN 32 | 102 | 102 | 0.2 | 0.2 | 1 |

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- BIOLOGY -- 1995

STATE SCALE SCORE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students with Valid Scores | 62,470 | High Score | 85 |
| | | Low Score | 28 |
| Mean | 55.5 | 1995 State Percentiles | Scale Score |
| Standard Deviation | 8.7 | 90 | 66.7 |
| | | 75 | 61.7 |
| | | 50 (Median) | 55.9 |
| Variance | 75.1 | 25 | 49.7 |
| | | 10 | 43.8 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 85 | 1 | 62470 | 0.0 | 100.0 | 99 |
| 84 | 1 | 62469 | 0.0 | 100.0 | 99 |
| 83 | 3 | 62468 | 0.0 | 100.0 | 99 |
| 82 | 9 | 62465 | 0.0 | 100.0 | 99 |
| 81 | 6 | 62456 | 0.0 | 100.0 | 99 |
| 80 | 25 | 62450 | 0.0 | 100.0 | 99 |
| 79 | 36 | 62425 | 0.1 | 99.9 | 99 |
| 78 | 59 | 62389 | 0.1 | 99.9 | 99 |
| 77 | 70 | 62330 | 0.1 | 99.8 | 99 |
| 76 | 135 | 62260 | 0.2 | 99.7 | 99 |
| 75 | 221 | 62125 | 0.4 | 99.5 | 99 |
| 74 | 214 | 61904 | 0.3 | 99.1 | 99 |
| 73 | 431 | 61690 | 0.7 | 98.8 | 98 |
| 72 | 355 | 61259 | 0.6 | 98.1 | 98 |
| 71 | 748 | 60904 | 1.2 | 97.5 | 97 |
| 70 | 617 | 60156 | 1.0 | 96.3 | 96 |
| 69 | 858 | 59539 | 1.4 | 95.3 | 95 |
| 68 | 1225 | 58681 | 2.0 | 93.9 | 93 |
| 67 | 1449 | 57456 | 2.3 | 92.0 | 91 |
| 66 | 1561 | 56007 | 2.5 | 89.7 | 88 |
| 65 | 1730 | 54446 | 2.8 | 87.2 | 86 |
| 64 | 1999 | 52716 | 3.2 | 84.4 | 83 |
| 63 | 2129 | 50717 | 3.4 | 81.2 | 79 |
| 62 | 2246 | 48588 | 3.6 | 77.8 | 76 |
| 61 | 2310 | 46342 | 3.7 | 74.2 | 72 |
| 60 | 2531 | 44032 | 4.1 | 70.5 | 68 |
| 59 | 3017 | 41501 | 4.8 | 66.4 | 64 |
| 58 | 2711 | 38484 | 4.3 | 61.6 | 59 |
| 57 | 2784 | 35773 | 4.5 | 57.3 | 55 |
| 56 | 2745 | 32989 | 4.4 | 52.8 | 51 |
| 55 | 2815 | 30244 | 4.5 | 48.4 | 46 |
| 54 | 2866 | 27429 | 4.6 | 43.9 | 42 |
| 53 | 2314 | 24563 | 3.7 | 39.3 | 37 |
| 52 | 1928 | 22249 | 3.1 | 35.6 | 34 |
| 51 | 2817 | 20321 | 4.5 | 32.5 | 30 |
| 50 | 2279 | 17504 | 3.7 | 28.0 | 26 |
| 49 | 1800 | 15225 | 2.9 | 24.4 | 23 |
| 48 | 1817 | 13425 | 2.9 | 21.5 | 20 |
| 47 | 1597 | 11608 | 2.6 | 18.6 | 17 |
| 46 | 1624 | 10011 | 2.6 | 16.0 | 15 |
| 45 | 1409 | 8387 | 2.3 | 13.4 | 12 |

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NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- BIOLOGY -- 1995
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 44 | 1039 | 6978 | 1.7 | 11.2 | 10 |
| 43 | 975 | 5939 | 1.6 | 9.5 | 9 |
| 42 | 854 | 4964 | 1.4 | 8.0 | 7 |
| 41 | 831 | 4110 | 1.3 | 6.6 | 6 |
| 40 | 702 | 3279 | 1.1 | 5.3 | 5 |
| 39 | 836 | 2577 | 1.3 | 4.1 | 3 |
| 38 | 699 | 1741 | 1.1 | 2.8 | 2 |
| 37 | 324 | 1042 | 0.5 | 1.7 | 1 |
| 36 | 225 | 718 | 0.4 | 1.2 | 1 |
| 35 | 268 | 493 | 0.4 | 0.8 | 1 |
| 34 | 92 | 225 | 0.2 | 0.4 | 1 |
| 33 | 79 | 133 | 0.1 | 0.2 | 1 |
| LESS THAN 33 | 54 | 54 | 0.1 | 0.1 | 1 |

STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
ECONOMIC, LEGAL, AND POLITICAL SYSTEMS --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 82,263 | HIGH SCORE | 85 |
| | | LOW SCORE | 21 |
| MEAN | 53.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.3 | 90 | 65.33 |
| | | 75 | 60.45 |
| VARIANCE | 86.4 | 50 (MEDIAN) | 54.58 |
| | | 25 | 47.70 |
| | | 10 | 40.72 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 85 | 2 | 82263 | 0.00 | 100.00 | 99 |
| 84 | 1 | 82261 | 0.00 | 100.00 | 99 |
| 83 | 2 | 82260 | 0.00 | 100.00 | 99 |
| 82 | 4 | 82258 | 0.00 | 99.99 | 99 |
| 81 | 10 | 82254 | 0.01 | 99.99 | 99 |
| 80 | 36 | 82244 | 0.04 | 99.98 | 99 |
| 79 | 16 | 82208 | 0.02 | 99.93 | 99 |
| 78 | 38 | 82192 | 0.05 | 99.91 | 99 |
| 77 | 100 | 82154 | 0.12 | 99.87 | 99 |
| 76 | 90 | 82054 | 0.11 | 99.75 | 99 |
| 75 | 174 | 81964 | 0.21 | 99.64 | 99 |
| 74 | 177 | 81790 | 0.22 | 99.43 | 99 |
| 73 | 260 | 81613 | 0.32 | 99.21 | 99 |
| 72 | 409 | 81353 | 0.50 | 98.89 | 99 |
| 71 | 747 | 80944 | 0.91 | 98.40 | 98 |
| 70 | 757 | 80197 | 0.92 | 97.49 | 97 |
| 69 | 697 | 79440 | 0.85 | 96.57 | 96 |
| 68 | 1466 | 78743 | 1.78 | 95.72 | 95 |
| 67 | 1270 | 77277 | 1.54 | 93.94 | 93 |
| 66 | 1669 | 76007 | 2.03 | 92.40 | 91 |
| 65 | 1807 | 74338 | 2.20 | 90.37 | 89 |
| 64 | 2308 | 72531 | 2.81 | 88.17 | 87 |
| 63 | 2566 | 70223 | 3.12 | 85.36 | 84 |
| 62 | 2717 | 67657 | 3.30 | 82.24 | 81 |
| 61 | 3079 | 64940 | 3.74 | 78.94 | 77 |
| 60 | 3040 | 61861 | 3.70 | 75.20 | 73 |
| 59 | 3259 | 58821 | 3.96 | 71.50 | 70 |
| 58 | 3620 | 55562 | 4.40 | 67.54 | 65 |
| 57 | 3457 | 51942 | 4.20 | 63.14 | 61 |
| 56 | 3538 | 48485 | 4.30 | 58.94 | 57 |
| 55 | 4137 | 44947 | 5.03 | 54.64 | 52 |
| 54 | 3357 | 40810 | 4.08 | 49.61 | 48 |
| 53 | 3268 | 37453 | 3.97 | 45.53 | 44 |
| 52 | 3489 | 34185 | 4.24 | 41.56 | 39 |
| 51 | 2543 | 30696 | 3.09 | 37.31 | 36 |
| 50 | 2714 | 28153 | 3.30 | 34.22 | 33 |
| 49 | 2679 | 25439 | 3.26 | 30.92 | 29 |
| 48 | 2747 | 22760 | 3.34 | 27.67 | 26 |
| 47 | 2212 | 20013 | 2.69 | 24.33 | 23 |
| 46 | 2170 | 17801 | 2.64 | 21.64 | 20 |
| 45 | 1646 | 15631 | 2.00 | 19.00 | 18 |
| 44 | 1640 | 13985 | 1.99 | 17.00 | 16 |
| 43 | 1450 | 12345 | 1.76 | 15.01 | 14 |
| 42 | 1721 | 10895 | 2.09 | 13.24 | 12 |
| 41 | 1210 | 9174 | 1.47 | 11.15 | 10 |
| 40 | 1028 | 7964 | 1.25 | 9.68 | 9 |
| 39 | 1187 | 6936 | 1.44 | 8.43 | 8 |
| 38 | 1355 | 5749 | 1.65 | 6.99 | 6 |
| 37 | 727 | 4394 | 0.88 | 5.34 | 5 |
| 36 | 775 | 3667 | 0.94 | 4.46 | 4 |
| 35 | 754 | 2892 | 0.92 | 3.52 | 3 |
| 34 | 808 | 2138 | 0.98 | 2.60 | 2 |
| 33 | 468 | 1330 | 0.57 | 1.62 | 1 |
| 32 | 304 | 862 | 0.37 | 1.05 | 1 |
| LESS THAN 32 | 558 | 558 | 0.68 | 0.68 | 1 |

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ENGLISH I -- 1995

STATE SCALE SCORE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students with Valid Scores | 67,739 | High Score | 84 |
| | | Low Score | 24 |
| Mean | 53.1 | 1995 State Percentiles | Scale Score |
| Standard Deviation | 8.9 | 90 | 64.5 |
| | | 75 | 59.4 |
| Variance | 79.9 | 50 (Median) | 53.2 |
| | | 25 | 47.0 |
| | | 10 | 41.3 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 84 | 3 | 67739 | 0.0 | 100.0 | 99 |
| 83 | 6 | 67736 | 0.0 | 100.0 | 99 |
| 82 | 4 | 67730 | 0.0 | 100.0 | 99 |
| 81 | 15 | 67726 | 0.0 | 100.0 | 99 |
| 80 | 21 | 67711 | 0.0 | 100.0 | 99 |
| 79 | 17 | 67690 | 0.0 | 99.9 | 99 |
| 78 | 59 | 67673 | 0.1 | 99.9 | 99 |
| 77 | 38 | 67614 | 0.1 | 99.8 | 99 |
| 76 | 65 | 67576 | 0.1 | 99.8 | 99 |
| 75 | 187 | 67511 | 0.3 | 99.7 | 99 |
| 74 | 71 | 67324 | 0.1 | 99.4 | 99 |
| 73 | 274 | 67253 | 0.4 | 99.3 | 99 |
| 72 | 361 | 66979 | 0.5 | 98.9 | 99 |
| 71 | 395 | 66618 | 0.6 | 98.4 | 98 |
| 70 | 553 | 66223 | 0.8 | 97.8 | 97 |
| 69 | 596 | 65670 | 0.9 | 97.0 | 97 |
| 68 | 709 | 65074 | 1.1 | 96.1 | 96 |
| 67 | 1077 | 64365 | 1.6 | 95.0 | 94 |
| 66 | 1244 | 63288 | 1.8 | 93.4 | 93 |
| 65 | 1057 | 62044 | 1.6 | 91.6 | 91 |
| 64 | 1900 | 60987 | 2.8 | 90.0 | 89 |
| 63 | 1644 | 59087 | 2.4 | 87.2 | 86 |
| 62 | 1399 | 57443 | 2.1 | 84.8 | 84 |
| 61 | 2918 | 56044 | 4.3 | 82.7 | 81 |
| 60 | 2026 | 53126 | 3.0 | 78.4 | 77 |
| 59 | 2799 | 51100 | 4.1 | 75.4 | 73 |
| 58 | 2391 | 48301 | 3.5 | 71.3 | 70 |
| 57 | 2437 | 45910 | 3.6 | 67.8 | 66 |
| 56 | 3137 | 43473 | 4.6 | 64.2 | 62 |
| 55 | 2574 | 40336 | 3.8 | 59.6 | 58 |
| 54 | 3358 | 37762 | 5.0 | 55.8 | 53 |
| 53 | 2032 | 34404 | 3.0 | 50.8 | 49 |
| 52 | 4088 | 32372 | 6.0 | 47.8 | 45 |
| 51 | 2039 | 28284 | 3.0 | 41.8 | 40 |
| 50 | 2681 | 26245 | 4.0 | 38.7 | 37 |
| 49 | 3363 | 23564 | 5.0 | 34.8 | 32 |
| 48 | 1897 | 20201 | 2.8 | 29.8 | 28 |
| 47 | 2593 | 18304 | 3.8 | 27.0 | 25 |
| 46 | 1739 | 15711 | 2.6 | 23.2 | 22 |
| 45 | 2246 | 13972 | 3.3 | 20.6 | 19 |
| 44 | 1527 | 11726 | 2.3 | 17.3 | 16 |
| 43 | 1961 | 10199 | 2.9 | 15.1 | 14 |

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- ENGLISH I -- 1995
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 42 | 1265 | 8238 | 1.9 | 12.2 | 11 |
| 41 | 1176 | 6973 | 1.7 | 10.3 | 9 |
| 40 | 1053 | 5797 | 1.6 | 8.6 | 8 |
| 39 | 952 | 4744 | 1.4 | 7.0 | 6 |
| 38 | 610 | 3792 | 0.9 | 5.6 | 5 |
| 37 | 763 | 3182 | 1.1 | 4.7 | 4 |
| 36 | 617 | 2419 | 0.9 | 3.6 | 3 |
| 35 | 517 | 1802 | 0.8 | 2.7 | 2 |
| 34 | 389 | 1285 | 0.6 | 1.9 | 2 |
| 33 | 299 | 896 | 0.4 | 1.3 | 1 |
| 32 | 252 | 597 | 0.4 | 0.9 | 1 |
| 31 | 178 | 345 | 0.3 | 0.5 | 1 |
| 30 | 79 | 167 | 0.1 | 0.3 | 1 |
| LESS THAN 30 | 88 | 88 | 0.1 | 0.2 | 1 |

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NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- US HISTORY -- 1995

STATE SCALE SCORE SUMMARY STATISTICS

| | | | |
|--------------------------------------|--------|------------------------|-------------|
| Number of Students with Valid Scores | 53,157 | High Score | 85 |
| | | Low Score | 28 |
| Mean | 56.2 | 1995 State Percentiles | Scale Score |
| Standard Deviation | 8.3 | 90 | 66.9 |
| | | 75 | 62.2 |
| | | 50 (Median) | 56.4 |
| Variance | 69.3 | 25 | 50.4 |
| | | 10 | 44.9 |

FREQUENCY DISTRIBUTION

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|-------------|-----------|----------------------|---------|--------------------|-----------------------|
| 85 | 1 | 53157 | 0.0 | 100.0 | 99 |
| 84 | 9 | 53156 | 0.0 | 100.0 | 99 |
| 83 | 6 | 53147 | 0.0 | 100.0 | 99 |
| 82 | 19 | 53141 | 0.0 | 100.0 | 99 |
| 81 | 18 | 53122 | 0.0 | 99.9 | 99 |
| 80 | 37 | 53104 | 0.1 | 99.9 | 99 |
| 79 | 51 | 53067 | 0.1 | 99.8 | 99 |
| 78 | 58 | 53016 | 0.1 | 99.7 | 99 |
| 77 | 81 | 52958 | 0.2 | 99.6 | 99 |
| 76 | 104 | 52877 | 0.2 | 99.5 | 99 |
| 75 | 260 | 52773 | 0.5 | 99.3 | 99 |
| 74 | 148 | 52513 | 0.3 | 98.8 | 99 |
| 73 | 330 | 52365 | 0.6 | 98.5 | 98 |
| 72 | 319 | 52035 | 0.6 | 97.9 | 98 |
| 71 | 609 | 51716 | 1.2 | 97.3 | 97 |
| 70 | 644 | 51107 | 1.2 | 96.1 | 96 |
| 69 | 855 | 50463 | 1.6 | 94.9 | 94 |
| 68 | 1052 | 49608 | 2.0 | 93.3 | 92 |
| 67 | 1106 | 48556 | 2.1 | 91.3 | 90 |
| 66 | 1308 | 47450 | 2.5 | 89.3 | 88 |
| 65 | 1430 | 46142 | 2.7 | 86.8 | 85 |
| 64 | 1847 | 44712 | 3.5 | 84.1 | 82 |
| 63 | 2309 | 42865 | 4.3 | 80.6 | 78 |
| 62 | 2158 | 40556 | 4.1 | 76.3 | 74 |
| 61 | 2024 | 38398 | 3.8 | 72.2 | 70 |
| 60 | 2493 | 36374 | 4.7 | 68.4 | 66 |
| 59 | 2542 | 33881 | 4.8 | 63.7 | 61 |
| 58 | 2302 | 31339 | 4.3 | 59.0 | 57 |
| 57 | 2298 | 29037 | 4.3 | 54.6 | 52 |
| 56 | 2315 | 26739 | 4.4 | 50.3 | 48 |
| 55 | 2472 | 24424 | 4.7 | 46.0 | 44 |
| 54 | 2301 | 21952 | 4.3 | 41.3 | 39 |
| 53 | 2367 | 19651 | 4.5 | 37.0 | 35 |
| 52 | 2338 | 17284 | 4.4 | 32.5 | 30 |
| 51 | 1514 | 14946 | 2.9 | 28.1 | 27 |
| 50 | 1904 | 13432 | 3.9 | 25.3 | 23 |
| 49 | 1588 | 11528 | 3.0 | 21.7 | 20 |
| 48 | 1462 | 9940 | 2.8 | 18.7 | 17 |
| 47 | 1367 | 8478 | 2.6 | 16.0 | 15 |
| 46 | 1025 | 7111 | 1.9 | 13.4 | 12 |
| 45 | 1235 | 6086 | 2.3 | 11.5 | 10 |
| 44 | 1091 | 4851 | 2.1 | 9.1 | 8 |

NORTH CAROLINA TESTING PROGRAM
END-OF-COURSE TEST -- US HISTORY -- 1995
(Continued)

| Scale Score | Frequency | Cumulative Frequency | Percent | Cumulative Percent | 1995 State Percentile |
|----------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 43 | 771 | 3760 | 1.5 | 7.1 | 6 |
| 42 | 856 | 2989 | 1.6 | 5.6 | 5 |
| 41 | 541 | 2133 | 1.0 | 4.0 | 4 |
| 40 | 400 | 1592 | 0.8 | 3.0 | 3 |
| 39 | 343 | 1192 | 0.7 | 2.2 | 2 |
| 38 | 353 | 849 | 0.7 | 1.6 | 1 |
| 37 | 278 | 496 | 0.5 | 0.9 | 1 |
| 36 | 92 | 218 | 0.2 | 0.4 | 1 |
| 35 | 70 | 126 | 0.1 | 0.2 | 1 |
| 34 | 28 | 56 | 0.1 | 0.1 | 1 |
| 33 | 16 | 28 | 0.0 | 0.1 | 1 |
| LESS THAN 33 | 12 | 12 | 0.0 | 0.0 | 1 |

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STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
ALGEBRA II --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 44,065 | HIGH SCORE | 88 |
| | | LOW SCORE | 33 |
| MEAN | 58.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.5 | 90 | 72.77 |
| | | 75 | 66.06 |
| VARIANCE | 109.6 | 50 (MEDIAN) | 58.95 |
| | | 25 | 50.27 |
| | | 10 | 44.84 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 88 | 12 | 44065 | 0.03 | 100.00 | 99 |
| 87 | 52 | 44053 | 0.12 | 99.97 | 99 |
| 86 | 93 | 44001 | 0.21 | 99.85 | 99 |
| 85 | 129 | 43908 | 0.29 | 99.64 | 99 |
| 84 | 113 | 43779 | 0.26 | 99.35 | 99 |
| 83 | 109 | 43666 | 0.25 | 99.09 | 99 |
| 82 | 148 | 43557 | 0.34 | 98.85 | 99 |
| 81 | 206 | 43409 | 0.47 | 98.51 | 98 |
| 80 | 292 | 43203 | 0.66 | 98.04 | 98 |
| 79 | 308 | 42911 | 0.70 | 97.38 | 97 |
| 78 | 317 | 42603 | 0.72 | 96.68 | 96 |
| 77 | 390 | 42286 | 0.89 | 95.96 | 96 |
| 76 | 425 | 41896 | 0.96 | 95.08 | 95 |
| 75 | 505 | 41471 | 1.15 | 94.11 | 94 |
| 74 | 712 | 40966 | 1.62 | 92.97 | 92 |
| 73 | 816 | 40254 | 1.85 | 91.35 | 90 |
| 72 | 823 | 39438 | 1.87 | 89.50 | 89 |
| 71 | 700 | 38615 | 1.59 | 87.63 | 87 |
| 70 | 972 | 37915 | 2.21 | 86.04 | 85 |
| 69 | 1439 | 36943 | 3.27 | 83.84 | 82 |
| 68 | 904 | 35504 | 2.05 | 80.57 | 80 |
| 67 | 957 | 34600 | 2.17 | 78.52 | 77 |
| 66 | 1362 | 33643 | 3.09 | 76.35 | 75 |
| 65 | 1422 | 32281 | 3.23 | 73.26 | 72 |
| 64 | 1644 | 30859 | 3.73 | 70.03 | 68 |
| 63 | 1272 | 29215 | 2.89 | 66.30 | 65 |
| 62 | 1311 | 27943 | 2.98 | 63.41 | 62 |
| 61 | 2307 | 26632 | 5.24 | 60.44 | 58 |
| 60 | 1473 | 24325 | 3.34 | 55.20 | 54 |
| 59 | 1499 | 22852 | 3.40 | 51.86 | 50 |
| 58 | 1613 | 21353 | 3.66 | 48.46 | 47 |
| 57 | 1053 | 19740 | 2.39 | 44.80 | 44 |
| 56 | 565 | 18687 | 1.28 | 42.41 | 42 |
| 55 | 1689 | 18122 | 3.83 | 41.13 | 39 |
| 54 | 1683 | 16433 | 3.82 | 37.29 | 35 |
| 53 | 1646 | 14750 | 3.74 | 33.47 | 32 |
| 52 | 1092 | 13104 | 2.48 | 29.74 | 28 |
| 51 | 627 | 12012 | 1.42 | 27.26 | 27 |
| 50 | 1628 | 11385 | 3.69 | 25.84 | 24 |
| 49 | 1581 | 9757 | 3.59 | 22.14 | 20 |
| 48 | 1003 | 8176 | 2.28 | 18.55 | 17 |
| 47 | 512 | 7173 | 1.16 | 16.28 | 16 |
| 46 | 1433 | 6661 | 3.25 | 15.12 | 13 |
| 45 | 1236 | 5228 | 2.80 | 11.86 | 10 |
| 44 | 754 | 3992 | 1.71 | 9.06 | 8 |
| 43 | 948 | 3238 | 2.15 | 7.35 | 6 |
| 42 | 700 | 2290 | 1.59 | 5.20 | 4 |
| 41 | 597 | 1590 | 1.35 | 3.61 | 3 |
| 40 | 406 | 993 | 0.92 | 2.25 | 2 |
| 39 | 265 | 587 | 0.60 | 1.33 | 1 |
| 38 | 186 | 322 | 0.42 | 0.73 | 1 |
| LESS THAN 38 | 136 | 136 | 0.31 | 0.31 | 1 |

STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
CHEMISTRY --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 35,458 | HIGH SCORE | 88 |
| | | LOW SCORE | 28 |
| MEAN | 56.8 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 8.5 | 90 | 67.96 |
| | | 75 | 62.80 |
| VARIANCE | 72.8 | 50 (MEDIAN) | 56.71 |
| | | 25 | 50.93 |
| | | 10 | 45.63 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 88 | 2 | 35458 | 0.01 | 100.00 | 99 |
| 87 | 1 | 35456 | 0.00 | 99.99 | 99 |
| 86 | 3 | 35455 | 0.01 | 99.99 | 99 |
| 85 | 7 | 35452 | 0.02 | 99.98 | 99 |
| 84 | 2 | 35445 | 0.01 | 99.96 | 99 |
| 83 | 15 | 35443 | 0.04 | 99.96 | 99 |
| 82 | 14 | 35428 | 0.04 | 99.92 | 99 |
| 81 | 37 | 35414 | 0.10 | 99.88 | 99 |
| 80 | 26 | 35377 | 0.07 | 99.77 | 99 |
| 79 | 39 | 35351 | 0.11 | 99.70 | 99 |
| 78 | 95 | 35312 | 0.27 | 99.59 | 99 |
| 77 | 73 | 35217 | 0.21 | 99.32 | 99 |
| 76 | 149 | 35144 | 0.42 | 99.11 | 99 |
| 75 | 191 | 34995 | 0.54 | 98.69 | 98 |
| 74 | 177 | 34804 | 0.50 | 98.16 | 98 |
| 73 | 377 | 34627 | 1.06 | 97.66 | 97 |
| 72 | 288 | 34250 | 0.81 | 96.59 | 96 |
| 71 | 398 | 33962 | 1.12 | 95.78 | 95 |
| 70 | 589 | 33564 | 1.66 | 94.66 | 94 |
| 69 | 676 | 32975 | 1.91 | 93.00 | 92 |
| 68 | 715 | 32299 | 2.02 | 91.09 | 90 |
| 67 | 909 | 31584 | 2.56 | 89.07 | 88 |
| 66 | 699 | 30675 | 1.97 | 86.51 | 86 |
| 65 | 1116 | 29976 | 3.15 | 84.54 | 83 |
| 64 | 1272 | 28860 | 3.59 | 81.39 | 80 |
| 63 | 1428 | 27588 | 4.03 | 77.80 | 76 |
| 62 | 1511 | 26160 | 4.26 | 73.78 | 72 |
| 61 | 1037 | 24649 | 2.92 | 69.52 | 68 |
| 60 | 1493 | 23612 | 4.21 | 66.59 | 64 |
| 59 | 1577 | 22119 | 4.45 | 62.38 | 60 |
| 58 | 1621 | 20542 | 4.57 | 57.93 | 56 |
| 57 | 1501 | 18921 | 4.23 | 53.36 | 51 |
| 56 | 1870 | 17420 | 5.27 | 49.13 | 46 |
| 55 | 1516 | 15550 | 4.28 | 43.85 | 42 |
| 54 | 1515 | 14034 | 4.27 | 39.58 | 37 |
| 53 | 1898 | 12519 | 5.35 | 35.31 | 33 |
| 52 | 1130 | 10621 | 3.19 | 29.95 | 28 |
| 51 | 1102 | 9491 | 3.11 | 26.77 | 25 |
| 50 | 1020 | 8389 | 2.88 | 23.66 | 22 |
| 49 | 1051 | 7369 | 2.96 | 20.78 | 19 |
| 48 | 1237 | 6318 | 3.49 | 17.82 | 16 |
| 47 | 835 | 5081 | 2.35 | 14.33 | 13 |
| 46 | 803 | 4246 | 2.26 | 11.97 | 11 |
| 45 | 450 | 3443 | 1.27 | 9.71 | 9 |
| 44 | 631 | 2993 | 1.78 | 8.44 | 8 |
| 43 | 566 | 2362 | 1.60 | 6.66 | 6 |
| 42 | 421 | 1796 | 1.19 | 5.07 | 4 |
| 41 | 501 | 1375 | 1.41 | 3.88 | 3 |
| 40 | 289 | 874 | 0.82 | 2.46 | 2 |
| 39 | 202 | 585 | 0.57 | 1.65 | 1 |
| 38 | 178 | 383 | 0.50 | 1.08 | 1 |
| 37 | 85 | 205 | 0.24 | 0.58 | 1 |
| 36 | 76 | 120 | 0.21 | 0.34 | 1 |
| LESS THAN 36 | 44 | 44 | 0.12 | 0.12 | 1 |

STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
GEOMETRY --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 52,736 | HIGH SCORE | 87 |
| | | LOW SCORE | 30 |
| MEAN | 57.0 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 10.4 | 90 | 70.69 |
| | | 75 | 64.73 |
| VARIANCE | 107.4 | 50 (MEDIAN) | 57.20 |
| | | 25 | 49.01 |
| | | 10 | 42.60 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 87 | 4 | 52736 | 0.01 | 100.00 | 99 |
| 86 | 19 | 52732 | 0.04 | 99.99 | 99 |
| 85 | 20 | 52713 | 0.04 | 99.96 | 99 |
| 84 | 42 | 52693 | 0.08 | 99.92 | 99 |
| 83 | 123 | 52651 | 0.23 | 99.84 | 99 |
| 81 | 160 | 52528 | 0.30 | 99.61 | 99 |
| 80 | 207 | 52368 | 0.39 | 99.30 | 99 |
| 79 | 203 | 52161 | 0.38 | 98.91 | 99 |
| 78 | 193 | 51958 | 0.37 | 98.52 | 98 |
| 77 | 254 | 51765 | 0.48 | 98.16 | 98 |
| 76 | 496 | 51511 | 0.94 | 97.68 | 97 |
| 75 | 498 | 51015 | 0.94 | 96.74 | 96 |
| 74 | 536 | 50517 | 1.02 | 95.79 | 95 |
| 73 | 1053 | 49981 | 2.00 | 94.78 | 94 |
| 72 | 702 | 48928 | 1.33 | 92.78 | 92 |
| 71 | 938 | 48226 | 1.78 | 91.45 | 91 |
| 70 | 810 | 47288 | 1.54 | 89.67 | 89 |
| 69 | 1508 | 46478 | 2.86 | 88.13 | 87 |
| 68 | 1243 | 44970 | 2.36 | 85.27 | 84 |
| 67 | 1296 | 43727 | 2.46 | 82.92 | 82 |
| 66 | 1727 | 42431 | 3.27 | 80.46 | 79 |
| 65 | 1490 | 40704 | 2.83 | 77.18 | 76 |
| 64 | 1928 | 39214 | 3.66 | 74.36 | 73 |
| 63 | 1160 | 37286 | 2.20 | 70.70 | 70 |
| 62 | 1969 | 36126 | 3.73 | 68.50 | 67 |
| 61 | 1684 | 34157 | 3.19 | 64.77 | 63 |
| 60 | 2128 | 32473 | 4.04 | 61.58 | 60 |
| 59 | 1899 | 30345 | 3.60 | 57.54 | 56 |
| 58 | 1373 | 28446 | 2.60 | 53.94 | 53 |
| 57 | 2349 | 27073 | 4.45 | 51.34 | 49 |
| 56 | 1921 | 24724 | 3.64 | 46.88 | 45 |
| 55 | 1467 | 22803 | 2.78 | 43.24 | 42 |
| 54 | 1495 | 21336 | 2.83 | 40.46 | 39 |
| 53 | 1434 | 19841 | 2.72 | 37.62 | 36 |
| 52 | 1542 | 18407 | 2.92 | 34.90 | 33 |
| 51 | 1497 | 16865 | 2.84 | 31.98 | 31 |
| 50 | 1458 | 15368 | 2.76 | 29.14 | 28 |
| 49 | 1488 | 13910 | 2.82 | 26.38 | 25 |
| 48 | 1510 | 12422 | 2.86 | 23.56 | 22 |
| 47 | 1478 | 10912 | 2.80 | 20.69 | 19 |
| 46 | 1540 | 9434 | 2.92 | 17.89 | 16 |
| 45 | 908 | 7894 | 1.72 | 14.97 | 14 |
| 44 | 533 | 6986 | 1.01 | 13.25 | 13 |
| 43 | 1306 | 6453 | 2.48 | 12.24 | 11 |
| 42 | 1200 | 5147 | 2.28 | 9.76 | 9 |
| 41 | 1005 | 3947 | 1.91 | 7.48 | 7 |
| 40 | 876 | 2942 | 1.66 | 5.58 | 5 |
| 39 | 698 | 2066 | 1.32 | 3.92 | 3 |
| 38 | 502 | 1368 | 0.95 | 2.59 | 2 |
| 37 | 370 | 866 | 0.70 | 1.64 | 1 |
| 36 | 271 | 496 | 0.51 | 0.94 | 1 |
| 35 | 101 | 225 | 0.19 | 0.43 | 1 |
| LESS THAN 35 | 124 | 124 | 0.24 | 0.24 | 1 |

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STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
PHYSICAL SCIENCE --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 59,609 | HIGH SCORE | 85 |
| | | LOW SCORE | 25 |
| MEAN | 53.7 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.4 | 90 | 65.81 |
| | | 75 | 60.51 |
| VARIANCE | 87.9 | 50 (MEDIAN) | 54.12 |
| | | 25 | 47.15 |
| | | 10 | 40.56 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 85 | 2 | 59609 | 0.00 | 100.00 | 99 |
| 83 | 5 | 59607 | 0.01 | 100.00 | 99 |
| 82 | 17 | 59602 | 0.03 | 99.99 | 99 |
| 81 | 11 | 59585 | 0.02 | 99.96 | 99 |
| 80 | 22 | 59574 | 0.04 | 99.94 | 99 |
| 79 | 51 | 59552 | 0.09 | 99.90 | 99 |
| 78 | 30 | 59501 | 0.05 | 99.82 | 99 |
| 77 | 84 | 59471 | 0.14 | 99.77 | 99 |
| 76 | 127 | 59387 | 0.21 | 99.63 | 99 |
| 75 | 155 | 59260 | 0.26 | 99.41 | 99 |
| 74 | 211 | 59105 | 0.35 | 99.15 | 99 |
| 73 | 275 | 58894 | 0.46 | 98.80 | 99 |
| 72 | 327 | 58619 | 0.55 | 98.34 | 98 |
| 71 | 516 | 58292 | 0.87 | 97.79 | 97 |
| 70 | 631 | 57776 | 1.06 | 96.92 | 96 |
| 69 | 712 | 57145 | 1.19 | 95.87 | 95 |
| 68 | 1080 | 56433 | 1.81 | 94.67 | 94 |
| 67 | 676 | 55353 | 1.13 | 92.86 | 92 |
| 66 | 1490 | 54677 | 2.50 | 91.73 | 90 |
| 65 | 1131 | 53187 | 1.90 | 89.23 | 88 |
| 64 | 1553 | 52056 | 2.61 | 87.33 | 86 |
| 63 | 2017 | 50503 | 3.38 | 84.72 | 83 |
| 62 | 1453 | 48486 | 2.44 | 81.34 | 80 |
| 61 | 2348 | 47033 | 3.94 | 78.90 | 77 |
| 60 | 2107 | 44685 | 3.53 | 74.96 | 73 |
| 59 | 2182 | 42578 | 3.66 | 71.43 | 70 |
| 58 | 2360 | 40396 | 3.96 | 67.77 | 66 |
| 57 | 2861 | 38036 | 4.80 | 63.81 | 61 |
| 56 | 1952 | 35175 | 3.27 | 59.01 | 57 |
| 55 | 2461 | 33223 | 4.13 | 55.73 | 54 |
| 54 | 2533 | 30762 | 4.25 | 51.61 | 49 |
| 53 | 2128 | 28229 | 3.57 | 47.36 | 46 |
| 52 | 2559 | 26101 | 4.29 | 43.79 | 42 |
| 51 | 1995 | 23542 | 3.35 | 39.49 | 38 |
| 50 | 1468 | 21547 | 2.46 | 36.15 | 35 |
| 49 | 2627 | 20079 | 4.41 | 33.68 | 31 |
| 48 | 2030 | 17452 | 3.41 | 29.28 | 28 |
| 47 | 1490 | 15422 | 2.50 | 25.87 | 25 |
| 46 | 1411 | 13932 | 2.37 | 23.37 | 22 |
| 45 | 1458 | 12521 | 2.45 | 21.01 | 20 |
| 44 | 1381 | 11063 | 2.32 | 18.56 | 17 |
| 43 | 1330 | 9682 | 2.23 | 16.24 | 15 |
| 42 | 1283 | 8352 | 2.15 | 14.01 | 13 |
| 41 | 1176 | 7069 | 1.97 | 11.86 | 11 |
| 40 | 1426 | 5893 | 2.39 | 9.89 | 9 |
| 39 | 911 | 4467 | 1.53 | 7.49 | 7 |
| 38 | 1094 | 3556 | 1.84 | 5.97 | 5 |
| 37 | 622 | 2462 | 1.04 | 4.13 | 4 |
| 36 | 691 | 1840 | 1.16 | 3.09 | 3 |
| 35 | 358 | 1149 | 0.60 | 1.93 | 2 |
| 34 | 271 | 791 | 0.45 | 1.33 | 1 |
| LESS THAN 34 | 520 | 520 | 0.87 | 0.87 | 1 |

STATE NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
PHYSICS --- 1997

SUMMARY STATISTICS ON SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 10,592 | HIGH SCORE | 84 |
| | | LOW SCORE | 25 |
| MEAN | 55.9 | STATE PERCENTILES | SCALE SCORE |
| STANDARD DEVIATION | 9.0 | 90 | 67.52 |
| | | 75 | 62.04 |
| VARIANCE | 81.7 | 50 (MEDIAN) | 56.15 |
| | | 25 | 49.46 |
| | | 10 | 44.02 |

FREQUENCY DISTRIBUTION

| SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1997 STATE PERCENTILE |
|--------------|-----------|----------------------|---------|--------------------|-----------------------|
| 84 | 5 | 10592 | 0.05 | 100.00 | 99 |
| 82 | 16 | 10587 | 0.15 | 99.95 | 99 |
| 81 | 9 | 10571 | 0.08 | 99.80 | 99 |
| 80 | 9 | 10562 | 0.08 | 99.72 | 99 |
| 79 | 26 | 10553 | 0.25 | 99.63 | 99 |
| 78 | 40 | 10527 | 0.38 | 99.39 | 99 |
| 77 | 36 | 10487 | 0.34 | 99.01 | 99 |
| 76 | 33 | 10451 | 0.31 | 98.67 | 99 |
| 75 | 35 | 10418 | 0.33 | 98.36 | 98 |
| 74 | 66 | 10383 | 0.62 | 98.03 | 98 |
| 73 | 73 | 10317 | 0.69 | 97.40 | 97 |
| 72 | 73 | 10244 | 0.69 | 96.71 | 96 |
| 71 | 128 | 10171 | 1.21 | 96.03 | 95 |
| 70 | 131 | 10043 | 1.24 | 94.82 | 94 |
| 69 | 176 | 9912 | 1.66 | 93.58 | 93 |
| 68 | 208 | 9736 | 1.96 | 91.92 | 91 |
| 67 | 221 | 9528 | 2.09 | 89.95 | 89 |
| 66 | 227 | 9307 | 2.14 | 87.87 | 87 |
| 65 | 307 | 9080 | 2.90 | 85.73 | 84 |
| 64 | 281 | 8773 | 2.65 | 82.83 | 82 |
| 63 | 388 | 8492 | 3.66 | 80.17 | 78 |
| 62 | 351 | 8104 | 3.31 | 76.51 | 75 |
| 61 | 372 | 7753 | 3.51 | 73.20 | 71 |
| 60 | 425 | 7381 | 4.01 | 69.68 | 68 |
| 59 | 549 | 6956 | 5.18 | 65.67 | 63 |
| 58 | 318 | 6407 | 3.00 | 60.49 | 59 |
| 57 | 667 | 6089 | 6.30 | 57.49 | 54 |
| 56 | 355 | 5422 | 3.35 | 51.19 | 50 |
| 55 | 347 | 5067 | 3.28 | 47.84 | 46 |
| 54 | 604 | 4720 | 5.70 | 44.56 | 42 |
| 53 | 421 | 4116 | 3.97 | 38.86 | 37 |
| 52 | 334 | 3695 | 3.15 | 34.88 | 33 |
| 51 | 303 | 3361 | 2.86 | 31.73 | 30 |
| 50 | 397 | 3058 | 3.75 | 28.87 | 27 |
| 49 | 366 | 2661 | 3.46 | 25.12 | 23 |
| 48 | 297 | 2295 | 2.80 | 21.67 | 20 |
| 47 | 361 | 1998 | 3.41 | 18.86 | 17 |
| 46 | 288 | 1637 | 2.72 | 15.46 | 14 |
| 45 | 216 | 1349 | 2.04 | 12.74 | 12 |
| 44 | 154 | 1133 | 1.45 | 10.70 | 10 |
| 43 | 204 | 979 | 1.93 | 9.24 | 8 |
| 42 | 156 | 775 | 1.47 | 7.32 | 7 |
| 41 | 104 | 619 | 0.98 | 5.84 | 5 |
| 40 | 116 | 515 | 1.10 | 4.86 | 4 |
| 39 | 111 | 399 | 1.05 | 3.77 | 3 |
| 38 | 83 | 288 | 0.78 | 2.72 | 2 |
| 37 | 61 | 205 | 0.58 | 1.94 | 2 |
| 36 | 52 | 144 | 0.49 | 1.36 | 1 |
| LESS THAN 36 | 92 | 92 | 0.87 | 0.87 | 1 |

NC High School Comprehensive Test

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North Carolina High School Comprehensive Test

Historical Information. The North Carolina High School Comprehensive Test—Reading Comprehension and Mathematics Applications was approved by the State Board of Education at its March 1997 meeting as a component of the ABCs accountability model for high schools effective with the 1998-99 school year. Because the ABCs of Public Education emphasize performance on the basic skills, the comprehensive test focuses on the assessment of reading and mathematics. This curriculum-based multiple-choice achievement test was developed to measure growth in student achievement in reading and mathematics from grade 8 to grade 10 for the purpose of high school accountability. The test was first administered (piloted) in 1997-98 to all students in grade 10.

The comprehensive test is an end-of-grade curriculum-based multiple-choice achievement test that assesses the reading strand of the English Language Arts competencies and the Mathematics competencies the typical student should have mastered by the end of the tenth grade. The content measured is not course specific. The results of the test can also be used to make norm-referenced interpretations; state norms were established from the 1997-98 test administration.

Reading Comprehension. The North Carolina High School Comprehensive Test—Reading Comprehension assesses a student's ability to read, understand, and critically analyze printed material. It emphasizes (1) the reading strand of the English Language Arts curriculum at grade 10 and (2) the reading that

students are expected to achieve by the end of grade 10. The curriculum specifications were officially adopted by the State Board of Education in the *Standard Course of Study* and the *Teacher Handbook*. Reading comprehension is assessed in the same manner as the end-of-grade test of reading comprehension and is similar to the Textual Analysis part of the English I end-of-course test. The authentic reading passages for the test are selected based on several criteria. They must be:

- Interesting to read;
- Complete (have a beginning, middle, and end); and
- Be from sources students might actually read.

By adhering to these criteria in the selection of passages, the passages tend to be longer than those typically found on standardized achievement tests. On each form of the test there are eight passages—three literary, three content-based, and two consumer/human interest.

There are 72 reading comprehension items, and the test administration time is 100 minutes.

Mathematics Applications. The North Carolina High School Comprehensive Test—Mathematics Applications assesses a student's ability to apply mathematical knowledge to solve real-world problems. It measures mathematics competencies that students typically are expected to achieve by the end of grade 10. The curriculum specifications, which form the basis for

this part of the test, were presented to the State Board of Education as part of the North Carolina Mathematics Framework (K-12). The framework consists of the following three competencies and four content strands:

Competencies

- Problem-solving
- Reasoning
- Communication

Content Strands

- Number Sense, Numeration, and Numerical Operations
- Spatial Sense, Measurement, and Geometry
- Patterns, Relationships, and Functions
- Statistics, Probability, and Discrete Mathematics

Mathematics is assessed in the same manner as the mathematics applications part of the end-of-grade test of mathematics, the Algebra I and Geometry end-of-course tests. Students may use formulas (located on the back of the test book), rulers, and protractors when taking the test.

There are 70 mathematics applications items, and the test administration time is 85 minutes.

Reporting Student Performance.

Student performance in reading comprehension and mathematics applications is reported using developmental scales like student performance on the end-of-grade tests at grades 3-8. In addition, student scores are reported using percentiles and achievement levels.

Results from the North Carolina High School Comprehensive Test provide

information about the average developmental scale scores obtained by all students and specific groups of students. Results from this test also provide information to chart student performance or progress in reading or mathematics over time on a developmental scale that spirals from grade 3 to grade 10 in each area.

In addition, the comprehensive test provides school and school systems with limited curricular information to identify areas of strengths and weaknesses which may be used to compare the performance of a group to the performance of other schools, school systems, and the state.

Achievement Levels. Achievement levels allow for a comparison of student and group performance to standards based on what is expected in each subject at a grade level. Achievement levels were determined by relating the judgement of thousands of North Carolina teachers concerning the performance of each of their student's performance (Contrasting Groups Method) on the NCHSCT. The achievement levels for the NCHSCT were established based on data collected during the 1997-98 pilot administration. The ranges are as follows:

Level I: Students performing at this level do not have sufficient mastery of knowledge and skills in this subject area to be successful in the next grade level.

Level II: Students performing at this level demonstrate inconsistent mastery of knowledge and skills that are fundamental in this subject area and that are minimally sufficient to be successful at the next grade level.

Level III: Students performing at this level consistently demonstrate mastery of grade level subject matter and skills and are well prepared for the next grade level.

Level IV: Students performing at this level consistently perform in a superior manner clearly beyond that required to be proficient at grade level work.

Ranges for Achievement Levels (1998)
North Carolina High School Comprehensive Test

| Subject/Grade | Level I | Level II | Level III | Level IV |
|----------------------|----------------|-----------------|------------------|-----------------|
| Reading 10 | 132-150 | 151-162 | 163-174 | 175-201 |
| Mathematics 10 | 141-159 | 160-171 | 172-188 | 189-226 |

STATE NORTH CAROLINA HIGH SCHOOL COMPREHENSIVE TEST
READING COMPREHENSION --- 1998

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-----------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 73,976 | HIGH SCORE | 199 |
| | | LOW SCORE | 132 |
| MEAN | 163.3 | STATE PERCENTILES | DEV SCALE SCORE |
| STANDARD DEVIATION | 10.2 | 90 | 176.35 |
| | | 75 | 170.75 |
| VARIANCE | 103.1 | 50 (MEDIAN) | 163.76 |
| | | 25 | 156.37 |
| | | 10 | 149.41 |

FREQUENCY DISTRIBUTION

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1998 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 199 | 3 | 73976 | 0.00 | 100.00 | 99 |
| 197 | 2 | 73973 | 0.00 | 100.00 | 99 |
| 194 | 14 | 73971 | 0.02 | 99.99 | 99 |
| 192 | 27 | 73957 | 0.04 | 99.97 | 99 |
| 191 | 13 | 73930 | 0.02 | 99.94 | 99 |
| 190 | 32 | 73917 | 0.04 | 99.92 | 99 |
| 189 | 65 | 73885 | 0.09 | 99.88 | 99 |
| 188 | 49 | 73820 | 0.07 | 99.79 | 99 |
| 187 | 97 | 73771 | 0.13 | 99.72 | 99 |
| 186 | 181 | 73674 | 0.24 | 99.59 | 99 |
| 185 | 296 | 73493 | 0.40 | 99.35 | 99 |
| 184 | 437 | 73197 | 0.59 | 98.95 | 99 |
| 183 | 153 | 72760 | 0.21 | 98.36 | 98 |
| 182 | 361 | 72607 | 0.49 | 98.15 | 98 |
| 181 | 678 | 72246 | 0.92 | 97.66 | 97 |
| 180 | 772 | 71568 | 1.04 | 96.74 | 96 |
| 179 | 1195 | 70796 | 1.62 | 95.70 | 95 |
| 178 | 1069 | 69601 | 1.45 | 94.09 | 93 |
| 177 | 1699 | 68532 | 2.30 | 92.64 | 91 |
| 176 | 1743 | 66833 | 2.36 | 90.34 | 89 |
| 175 | 1883 | 65090 | 2.55 | 87.99 | 87 |
| 174 | 1563 | 63207 | 2.11 | 85.44 | 84 |
| 173 | 2230 | 61644 | 3.01 | 83.33 | 82 |
| 172 | 2239 | 59414 | 3.03 | 80.32 | 79 |
| 171 | 2245 | 57175 | 3.03 | 77.29 | 76 |
| 170 | 2450 | 54930 | 3.31 | 74.25 | 73 |
| 169 | 2514 | 52480 | 3.40 | 70.94 | 69 |
| 168 | 2535 | 49966 | 3.43 | 67.54 | 66 |
| 167 | 2670 | 47431 | 3.61 | 64.12 | 62 |
| 166 | 3333 | 44761 | 4.51 | 60.51 | 58 |
| 165 | 1955 | 41428 | 2.64 | 56.00 | 55 |
| 164 | 3377 | 39473 | 4.56 | 53.36 | 51 |
| 163 | 3242 | 36096 | 4.38 | 48.79 | 47 |
| 162 | 2066 | 32854 | 2.79 | 44.41 | 43 |
| 161 | 1927 | 30788 | 2.60 | 41.62 | 40 |
| 160 | 4011 | 28861 | 5.42 | 39.01 | 36 |
| 159 | 2018 | 24850 | 2.73 | 33.59 | 32 |
| 158 | 1867 | 22832 | 2.52 | 30.86 | 30 |
| 157 | 2252 | 20965 | 3.04 | 28.34 | 27 |
| 156 | 1714 | 18713 | 2.32 | 25.30 | 24 |
| 155 | 2233 | 16999 | 3.02 | 22.98 | 22 |
| 154 | 1616 | 14766 | 2.18 | 19.96 | 19 |
| 153 | 1540 | 13150 | 2.08 | 17.78 | 17 |
| 152 | 1411 | 11610 | 1.91 | 15.69 | 15 |
| 151 | 1399 | 10199 | 1.89 | 13.79 | 13 |
| 150 | 1297 | 8800 | 1.75 | 11.90 | 11 |
| 149 | 1213 | 7503 | 1.64 | 10.14 | 9 |
| 148 | 744 | 6290 | 1.01 | 8.50 | 8 |
| 147 | 1118 | 5546 | 1.51 | 7.50 | 7 |
| 146 | 358 | 4428 | 0.48 | 5.99 | 6 |
| 145 | 944 | 4070 | 1.28 | 5.50 | 5 |
| 144 | 810 | 3126 | 1.09 | 4.23 | 4 |
| 143 | 630 | 2316 | 0.85 | 3.13 | 3 |
| 142 | 543 | 1686 | 0.73 | 2.28 | 2 |
| 141 | 462 | 1143 | 0.62 | 1.55 | 1 |
| LESS THAN 141 | 681 | 681 | 0.92 | 0.92 | 1 |

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STATE

NORTH CAROLINA HIGH SCHOOL COMPREHENSIVE TEST

MATHEMATICS APPLICATIONS --- 1998

SUMMARY STATISTICS ON DEVELOPMENTAL SCALE SCORES

| | | | |
|--------------------------------------|--------|-------------------|-----------------|
| NUMBER OF STUDENTS WITH VALID SCORES | 73,635 | HIGH SCORE | 224 |
| | | LOW SCORE | 141 |
| MEAN | 174.3 | STATE PERCENTILES | DEV SCALE SCORE |
| STANDARD DEVIATION | 13.5 | 90 | 192.99 |
| | | 75 | 183.42 |
| | | 50 (MEDIAN) | 173.20 |
| VARIANCE | 182.5 | 25 | 163.48 |
| | | 10 | 157.10 |

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1998 STATE PERCENTILE |
|---------------------------|-----------|----------------------|---------|--------------------|-----------------------|
| 224 | 3 | 73635 | 0.00 | 100.00 | 99 |
| 223 | 6 | 73632 | 0.01 | 100.00 | 99 |
| 221 | 20 | 73626 | 0.03 | 99.99 | 99 |
| 220 | 11 | 73606 | 0.01 | 99.96 | 99 |
| 218 | 27 | 73595 | 0.04 | 99.95 | 99 |
| 217 | 16 | 73568 | 0.02 | 99.91 | 99 |
| 216 | 54 | 73552 | 0.07 | 99.89 | 99 |
| 215 | 24 | 73498 | 0.03 | 99.81 | 99 |
| 214 | 57 | 73474 | 0.08 | 99.78 | 99 |
| 213 | 35 | 73417 | 0.05 | 99.70 | 99 |
| 212 | 73 | 73382 | 0.10 | 99.66 | 99 |
| 211 | 44 | 73309 | 0.06 | 99.56 | 99 |
| 210 | 100 | 73265 | 0.14 | 99.50 | 99 |
| 209 | 59 | 73165 | 0.08 | 99.36 | 99 |
| 208 | 114 | 73106 | 0.15 | 99.28 | 99 |
| 207 | 243 | 72992 | 0.33 | 99.13 | 99 |
| 206 | 198 | 72749 | 0.27 | 98.80 | 99 |
| 205 | 213 | 72551 | 0.29 | 98.53 | 98 |
| 204 | 228 | 72338 | 0.31 | 98.24 | 98 |
| 203 | 259 | 72110 | 0.35 | 97.93 | 98 |
| 202 | 395 | 71851 | 0.54 | 97.58 | 97 |
| 201 | 413 | 71456 | 0.56 | 97.04 | 97 |
| 200 | 510 | 71043 | 0.69 | 96.48 | 96 |
| 199 | 524 | 70533 | 0.71 | 95.79 | 95 |
| 198 | 350 | 70009 | 0.48 | 95.08 | 95 |
| 197 | 591 | 69659 | 0.80 | 94.60 | 94 |
| 196 | 672 | 69068 | 0.91 | 93.80 | 93 |
| 195 | 975 | 68396 | 1.32 | 92.89 | 92 |
| 194 | 730 | 67421 | 0.99 | 91.56 | 91 |
| 193 | 821 | 66691 | 1.11 | 90.57 | 90 |
| 192 | 845 | 65870 | 1.15 | 89.45 | 89 |
| 191 | 928 | 65025 | 1.26 | 88.31 | 88 |
| 190 | 1290 | 64097 | 1.75 | 87.05 | 86 |
| 189 | 987 | 62807 | 1.34 | 85.30 | 85 |
| 188 | 1437 | 61820 | 1.95 | 83.95 | 83 |
| 187 | 1159 | 60383 | 1.57 | 82.00 | 81 |
| 186 | 1206 | 59224 | 1.64 | 80.43 | 80 |
| 185 | 1304 | 58018 | 1.77 | 78.79 | 78 |
| 184 | 1364 | 56714 | 1.85 | 77.02 | 76 |
| 183 | 1524 | 55350 | 2.07 | 75.17 | 74 |
| 182 | 1583 | 53826 | 2.15 | 73.10 | 72 |
| 181 | 2156 | 52243 | 2.93 | 70.95 | 70 |
| 180 | 1729 | 50087 | 2.35 | 68.02 | 67 |
| 179 | 1855 | 48358 | 2.52 | 65.67 | 64 |
| 178 | 1973 | 46503 | 2.68 | 63.15 | 62 |
| 177 | 2028 | 44530 | 2.75 | 60.47 | 59 |
| 176 | 2162 | 42502 | 2.94 | 57.72 | 56 |
| 175 | 1552 | 40340 | 2.11 | 54.78 | 54 |
| 174 | 1510 | 38788 | 2.05 | 52.68 | 52 |
| 173 | 1558 | 37278 | 2.12 | 50.63 | 50 |
| 172 | 2496 | 35720 | 3.39 | 48.51 | 47 |
| 171 | 2612 | 33224 | 3.55 | 45.12 | 43 |
| 170 | 1831 | 30612 | 2.49 | 41.57 | 40 |
| 169 | 930 | 28781 | 1.26 | 39.09 | 38 |
| 168 | 2844 | 27851 | 3.86 | 37.82 | 36 |

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MATHEMATICS APPLICATIONS --- 1998

FREQUENCY DISTRIBUTION (CONTINUED)

| DEVELOPMENTAL SCALE SCORE | FREQUENCY | CUMULATIVE FREQUENCY | PERCENT | CUMULATIVE PERCENT | 1998 STATE PERCENTILE |
|---------------------------------|-----------|-------------------------|---------|-----------------------|--------------------------|
| 167 | 1813 | 25007 | 2.46 | 33.96 | 33 |
| 166 | 992 | 23194 | 1.35 | 31.50 | 31 |
| 165 | 2880 | 22202 | 3.91 | 30.15 | 28 |
| 164 | 875 | 19322 | 1.19 | 26.24 | 26 |
| 163 | 1930 | 18447 | 2.62 | 25.05 | 24 |
| 162 | 2834 | 16517 | 3.85 | 22.43 | 21 |
| 161 | 909 | 13683 | 1.23 | 18.58 | 18 |
| 160 | 1791 | 12774 | 2.43 | 17.35 | 16 |
| 159 | 2306 | 10983 | 3.13 | 14.92 | 13 |
| 158 | 738 | 8677 | 1.00 | 11.78 | 11 |
| 157 | 1428 | 7939 | 1.94 | 10.78 | 10 |
| 156 | 1799 | 6511 | 2.44 | 8.84 | 8 |
| 155 | 1077 | 4712 | 1.46 | 6.40 | 6 |
| 154 | 829 | 3635 | 1.13 | 4.94 | 4 |
| 153 | 684 | 2806 | 0.93 | 3.81 | 3 |
| 152 | 813 | 2122 | 1.10 | 2.88 | 2 |
| 151 | 506 | 1309 | 0.69 | 1.78 | 1 |
| 150 | 288 | 803 | 0.39 | 1.09 | 1 |
| LESS THAN 150 | 515 | 515 | 0.70 | 0.70 | 1 |

Using Test Scores for Student Decisions

There is a natural desire to want to use numbers as if they were absolutely precise when making decisions. However, common experiences teach that most measurements vary a little in their precision. A carpenter's ruler may not be as accurate as a scientist's, bathroom scales may not be as accurate as those in a doctor's office, and speedometers in cars may show speeds that vary from those captured on a radar gun. Decisions can be and are made from both levels of precision.

Individuals often use their knowledge of accuracy when making the final decision. For example, the carpenter may use lumber that has been cut just a bit short but reject other cuts because of the intended use of the wood. The doctor may not make a decision about a patient using just one precise measurement but may prefer to use a pattern of weight measurements from two scales before suggesting a course of treatment. The police officer may not ticket a speeding offender driving within a few miles per hour of the posted speed limit because he or she recognizes the potential for a difference in precision.

Making decisions about students has similar problems, with the additional complexity of the measurement of human characteristics such as academic achievement or aptitude. Clearly, it is easier to measure speed, weight, or length than intelligence or achievement. Teachers who work with students approximately 180 days each year can only assign grades into perhaps five broad categories of achievement (such as A, B, C, D, or F). They also know that achievement may vary from day to day for a given student. One day a student

may respond in a consistent "well above average" fashion while the very next day he or she may give average or just above average responses. When it comes to a decision that has more important consequences than reporting to parents about progress in school, such as failure in a grade or admission to a special program, teachers are often uncomfortable depending on their own judgment alone. Most prefer to use additional independent judgments or results from standardized tests to confirm these major decisions.

Multiple-choice tests are more reliable than any single teacher's test, but they are not perfect instruments. Just as speedometers, scales, and rulers have variation in their measurement accuracy, test scores vary due to characteristics of the specific test items and the differences in student performance that occur on a daily basis. In order to help ensure that all students meet a standard of performance, citizens and educators sometimes feel a need to use a single objective score from a standardized test to make important decisions about students. It is inappropriate to place so much weight on a single administration of a single instrument, which takes such a short time to administer. The NC Testing Code of Ethics, guidelines adopted by the State Board of Education, has helped many educators make more appropriate interpretations of test scores. Two items under Reporting are illustrative:

- Individual test scores are best presented as approximations and not as absolutes. It is preferable to report results as a limited score range rather than distinct points.

- Test scores are to be presented as one source of information about a student or group of students and should not be used alone for placement, referral, and other consequential decisions on the education of a student.

These guidelines are consistent with Standards for Educational and Psychological Testing developed nationally by the American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education.

For more information on the psychometric characteristics (e.g., standard error of measurement) of tests developed by The NCDPI, refer to the following documents:

- North Carolina End-of-Grade Tests, Technical Report #1 (NCDPI, 1996), North Carolina End-of-Course Tests, Technical Report #1 (NCDPI, 1996), and
- North Carolina Tests of Writing, Technical Report #1 (NCDPI, 1996).

Examples of Appropriate Uses

The process for identifying students for special programs in North Carolina follows guidelines in the NC Testing Code of Ethics by using a combination of teacher recommendations, standardized tests, and past performance.

- The state standard for a **Competency Test** in a given area, which was also set using a combination of information, is currently based on one test. However, the student has repeated opportunities to take the test before the decision to withhold graduation with a diploma is made.
- Similarly, **Grade-Level Proficiency Guidelines** identify students on a standard set by teachers and translated to a test score. Under these guidelines, local policy and discretion determine promotion and retention decisions which take into account the student's test score and other information which may indicate a student's level of achievement in a grade.

Conclusion

When making decisions that impact students, the best plan is one which incorporates a combination of information about the student. The plan should ask for repeated demonstrations of the weaknesses or excellence of the student in the particular area. This conservative approach more nearly matches that used by the carpenter, doctor, or police officer. It takes into account variation in measurement and checks for patterns that provide keys for any important decision.

Glossary of Testing and Other Statistical Terms

Achievement Levels. Predetermined levels of achievement that relate the judgment of North Carolina teachers to the actual student performance on North Carolina tests. The achievement levels allow for the comparison of student and group performance to establish standards based on what is expected in a subject area at each grade level. Achievement levels used for North Carolina were set using the Contrasting Groups Method of performance standard setting.

Achievement Test. A test that measures the extent to which a person has “achieved” something, acquired certain information, or mastered certain standardized sets of skills - usually as a result of planned instruction or training.

Criterion-Referenced Test. A test that is designed to provide information on the specific knowledge or skills possessed by a student. Such tests usually cover relatively small units and are related to instruction. Performance is measured in reference to mastery of particular skills. Scores from these tests have meaning in terms of *what* the student knows or can do, rather than in their relation to the scores made by some external reference or norm group.

Curriculum-Based Test. A test that is designed to measure student performance in reference to goals and competencies specifically defined in a curriculum.

Developmental Scale Scores. Developmental scales are similar to

rulers that allow growth in a subject to be measured across time. Developmental scale scores are intended to be interpreted much like height in inches. As is the case for growth in height, we expect an annual increase in scale scores, but not the same increase for each year. The rate of growth is a bit faster in the earlier grades than in the later grades. A developmental scale score in end-of-grade reading should not be compared to a developmental scale score in end-of-grade mathematics.

Diagnostic Test. A test that is used to diagnose, analyze or locate an individual's specific areas of weakness and/or strength to determine the nature of the weaknesses or deficiencies and, where possible, to suggest the cause. Diagnostic tests are most commonly prepared for the skill subjects.

End-of-Course Tests. Curriculum-based accountability assessments used to measure student achievement in specific high school courses.

End-of-Grade Tests. Achievement tests that provide information about the overall proficiency of students in specific content areas at the end of a grade. They measure how much a student has grown educationally in a year and whether or not groups of students are performing according to grade level expectations. These tests are curriculum-based accountability tests and scores are presented as developmental scale scores. The tests provide limited information about the

strengths and weaknesses of individual students in specific skill areas.

Focused Holistic Score. Used in assessments, which evaluate the writing skills of students in grades 4, 7, and English II (grade 10). Student compositions are assigned a score that reflects a trained reader's general impression of each composition's quality. The reader focuses on the set of prescribed composition characteristics (main idea, supporting details, coherence, and organization) and assigns a score based on the level of facility that the writer demonstrates.

Frequency. The number of objects, individuals, or events in a category. For example, the number of students enrolled in an elementary school or in an Algebra I course; the number of students in each grade level; and the number of students in third grade who scored 150 on their reading test.

Frequency Distribution. The number of objects, individuals, or events in each category of a variable. For example, the number of third-grade students in Xavier Elementary School scoring at each score point on the reading EOG test.

Gain. Gain is computed as the difference between the average student test scores in the grade, group or subject in Year 1 and the average test scores of the same grade, group or subject in Year 2. For example, the difference between grade 3 reading scores in 1993 and grade 3 reading scores in 1994; or the difference between Algebra I test scores in 1994 and Algebra I test scores in 1995.

Growth. The cohort difference in test score achievement across grades/years.

Growth is computed as the difference between the test scores (developmental scale scores) of a group in Year 1 and the test scores of the same group in Year 2. For example, grade 3 mathematics test scores in 1993 and grade 4 mathematics test scores in 1994.

Mean, Median, Mode. Measures of central tendency. The mean (or average) is the sum of the scores divided by the total number of scores. The median is the middle score in an ordered distribution of scores. The mode is the most frequently occurring score in the distribution. The mean is generally the best measure of central tendency when scores are normally distributed.

Mean Percent Correct. The average of the percentage of test questions students answered correctly.

N or Number. The number of students with valid test scores on a specific test, which may also be referred to as "N-counts."

Normal Curve Equivalent (NCEs). The normal curve equivalent (NCE) scale ranges from 1 to 99. NCEs have many of the same characteristics as percentile ranks but have the additional advantage of being based on an equal-interval scale. That is, the difference between two successive scores on the scale has the same meaning throughout the scale.

Norm-Referenced Test. A test that measures performance in relation to a comparison group.

Norming Year. The first year a test is administered; used for baseline comparative purposes. Percentile scores

are computed based on the state distribution of scores from the norming year.

Percentiles. A percentile indicates the percentage of scores that fall below a given score. A commonly used percentile is the median, which is the 50th percentile. For example, a score at the 55th percentile means that the score is higher than the score achieved by 55 percent of all students taking the test in the year the test was normed. A score at the 55th percentile *does not* mean 55% of the questions were answered correctly.

Percentile Ranks. The percentile rank of a score is the percentage of scores less than or equal to that score. For example, the percentile rank of 63 is the percentage of scores in the distribution that falls at or below a score of 63. In Algebra I, the percentile rank of a score of 63 is 80. The percentile rank is a point on the percentile scale, whereas a percentile is a score, a point on the original measurement scale. Percentile ranks of scores can be compared across two or more distributions; percentiles cannot be used to determine differences in relative rank due to the fact that the interval between adjacent percentiles do not necessarily represent equal raw or scale score intervals.

Range. A measure of variability. The range is the difference between the highest and lowest scores in the distribution.

Raw Score. The number of test questions a student answers correctly.

Scale Scores. Scores that express how far a given *raw* score (number correct) is from a reference point, usually the mean

score. Scale scores are units of an equal-interval scale. The difference between two successive scores on the scale has the same meaning throughout the scale. The advantage of scale scores is that they allow an individual's performance to be compared on several different tests, regardless of the raw score scales.

Standard Deviation. A measure of variability; an indication of how much variation there is in the scores, i.e., how close together or how spread out the scores are. The standard deviation measures the extent to which scores or events in a distribution, on the average, deviate from the mean. The standard deviation is the square root of the variance.

For example: SAT Verbal Scores are reported as scale scores. The scores range from 200 to 800. The mean is 500. To determine the standard deviation of normally distributed scores, divide the range of scores by 6 ($600/6=100$).

Statistical significance = $1/4$ of a standard deviation ($100/4=25$). Using the SAT example, a score of 485 is within 25 points of the mean. In a statistical context, this score is not significantly different from the mean.

Educational significance = $1/3$ of a standard deviation ($100/3=33.3$). Using the SAT example, a score of 465 is not within 33 points of the mean. In an educational context, this score is not significantly different from the mean score.

Reliability. The extent to which a test is consistent in measuring whatever it purports to measure; an indication of

dependability, stability, trustworthiness, and relative freedom from errors of measurement. Reliability is usually expressed as a *reliability coefficient* or by the standard error of measurement derived from it.

Standard Error of Measurement. As applied to a single obtained score, the amount by which the score may differ from the hypothetical true score due to errors of measurement. The larger the standard error of measurement, the less reliable the score. In about two-thirds of the scores in a group, the obtained score will not differ by more than one standard error measurement from the true score.

Standardized Test. A test designed to provide a systematic sample of individual performance, administered according to prescribed directions, scored in conformance with definite rules, and interpreted in reference to certain normative information.

Test Item Banks and Testlets. Item banks are pools of items available electronically and from which teachers can select items for use in the classroom. Test item banks are designed to match the curriculum goals and objectives which allows the teacher to assess achievement/mastery immediately after instruction. Item banks can be used to generate tests to diagnose student strengths and weaknesses.

Testlets are a resource developed by NCDPI for teachers and administrators to operationalize and implement the revised North Carolina *Standard Course of Study*. Testlets are mini-tests that measure specific areas of the curriculum. The same items are found in test item

banks developed by NCDPI and found in the testlets.

Validity. The extent to which a test measures that which it purports to measure. All procedures for determining test validity are concerned with the relationships between performance on the test and other independently observable facts. There is content-related validity, criterion-related validity, construct-related validity, and predictive validity.

Variance. A measure of variability derived by subtracting the mean test score from each student's test score, squaring the difference, summing the squares, and dividing by the number of students. If the variance is small, the scores are close together; if the variance is large, the scores are more spread out.



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